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STRUCTURE FILE UPDATES: 10 JAN 2010 HIGHEST RN 1201787-64-5
 DICTIONARY FILE UPDATES: 10 JAN 2010 HIGHEST RN 1201787-64-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

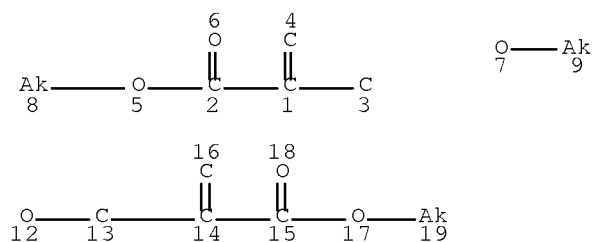
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 predicted properties as well as tags indicating availability of
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<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d que 119

L7 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8
 CONNECT IS E1 RC AT 19
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

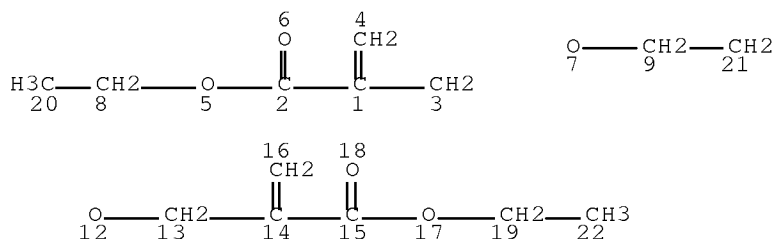
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L9 531 SEA FILE=REGISTRY SSS FUL L7
 L14 STR

10/567,430



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L16 11 SEA FILE=REGISTRY SUB=L9 SSS FUL L14
L17 8 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L16 NOT 1-100/NR

L18 6 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L17 NOT (S OR N
OR P)/ELS
L19 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L18

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 08:41:34 ON 11 JAN 2010

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 11 Jan 2010 VOL 152 ISS 3

FILE LAST UPDATED: 10 Jan 2010 (20100110/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate

substance identification.

=> d 119 1-7 ibib ed abs hitstr hitind

L19 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2008:1012782 HCAPLUS Full-text
 DOCUMENT NUMBER: 149:269595
 TITLE: Electron beam-curable composition and producing
 cured coating, ink or adhesive
 INVENTOR(S): Kunita, Kazuto
 PATENT ASSIGNEE(S): Fujifilm Corporation, Japan
 SOURCE: U.S. Pat. Appl. Publ., 32pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080200581	A1	20080821	US 2008-27648	20080207
JP 2008201889	A	20080904	JP 2007-39379	20070220
PRIORITY APPLN. INFO.:			JP 2007-39379	A 20070220

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 22 Aug 2008

AB Producing an electron beam-cured coating includes forming on a substrate a layer of a curable composition that includes ≥ 1 compound $\text{CH}_2\text{:C}(\text{Q1})\text{CARbRaX1}$ (I) and a step of curing the layer of the curable composition by irradiating with an electron beam. In I, Q1 = cyano group or $-\text{COX}_2$ group, X1 = H, organic residue, or polymer chain bonded to C atom CA via a heteroatom, or halogen, X2 = H, organic residue, or polymer chain bonded to the carbonyl group via a heteroatom, or halogen, Ra and Rb = H, halogen, cyano group, or an organic residue, and X1 and X2, Ra and Rb, and X1 and Ra or Rb may be bonded to each other to form a cyclic structure. An example curable composition contained F 177 surfactant 0.03, cyclohexanone 20, and $\text{CH}_2\text{:C}(\text{COX}_2)\text{CH}_2\text{X1}$ (X2 = OEt; X1 = $\text{OCH}_2\text{CH}_2\text{OCOMe}$) 10 parts.

IT 1047993-80-5F

(electron beam-curable composition with good adhesion to PET substrate)

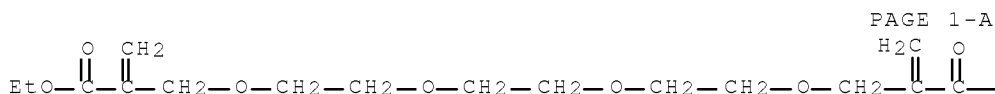
RN 1047993-80-5 HCAPLUS

CN 4,7,10,13-Tetraoxahexadecanedioic acid, 2,15-bis(methylene)-, 1,16-diethyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 896113-18-1

CMF C18 H30 O8



—OEt

INCL 522104000

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37

IT 333306-31-3P 333306-34-6P 1047993-72-5P 1047993-74-7P
 1047993-75-8P 1047993-78-1P ~~1047993-80-5P~~
 1047993-83-8P 1047993-86-1P 1047993-89-4P 1047993-91-8P
 1047993-94-1P 1047993-96-3P 1047993-99-6P 1047994-01-3P
 1047994-03-5P

(electron beam-curable composition with good adhesion to PET substrate)

L19 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:673215 HCAPLUS Full-text

DOCUMENT NUMBER: 145:113448

TITLE: Radiation-curable ink-jet inks containing
 ethylenically polymerizable crosslinking agents
 with excellent storage stability and sensitivity,
 lithographic plates using them, and their
 manufacture

INVENTOR(S): Sugai, Shoji; Kunita, Kazuto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2006182990	A	20060713	JP 2004-380665	20041228
PRIORITY APPLN. INFO.:			JP 2004-380665	20041228

ED Entered STN: 13 Jul 2006

AB The inks contain polymerizable compds., colorants, and ≥ 1 crosslinking agents
 selected from those bearing 2 ethylenically polymerizable groups and those
 bearing ≥ 3 ethylenically polymerizable groups, thus giving wear-resistant
 hydrophobic images on hydrophilic supports without a development process.

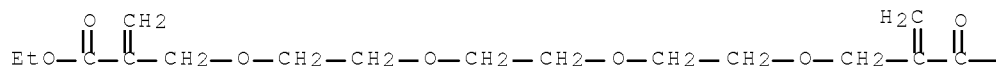
IT ~~896113-18-1~~

(storage-stable radiation-curable ink-jet inks containing
 heteromethacrylic crosslinking agents for lithog. plates with good
 wear resistant)

RN 896113-18-1 HCAPLUS

CN 4,7,10,13-Tetraoxahexadecanedioic acid, 2,15-bis(methylene)-,
 1,16-diethyl ester (CA INDEX NAME)

PAGE 1-A



—OEt

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 42

IT 3524-68-3D, Pentaerythritol triacrylate, reaction products with polyurethane 4813-57-4, Stearyl acrylate 5888-33-5, Isobornyl acrylate 23350-07-4D, derivs. 25035-42-1D, reaction products with pentaerythritol triacrylate 25038-59-9D, Ethylene glycol-terephthalic acid copolymer, terminated 25748-74-7D, reaction products with pentaerythritol triacrylate 51248-94-3 872552-19-7 896113-17-0D, derivs. ~~896113-18-1~~ 896113-19-2
 (storage-stable radiation-curable ink-jet inks containing heteromethacrylic crosslinking agents for lithog. plates with good wear resistant)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L19 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:120909 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:198979
 TITLE: New polyether based monomers, crosslinkers, and highly crosslinked amphiphile polyether resins
 INVENTOR(S): Cote, Simon
 PATENT ASSIGNEE(S): Matrix Innovation Inc., Can.
 SOURCE: PCT Int. Appl., 75 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012277	A1	20050210	WO 2004-CA1461	20040804
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2534616	A1	20050210	CA 2004-2534616	20040804
EP 1687343	A1	20060809	EP 2004-761625	20040804
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1856483	A	20061101	CN 2004-80027888	20040804
JP 2007501296	T	20070125	JP 2006-522190	20040804

10/567,430

US 20060241245 A1 20061026 US 2006-567430 20060425
PRIORITY APPLN. INFO.: US 2003-491969P P 20030804
WO 2004-CA1461 W 20040804

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 11 Feb 2005

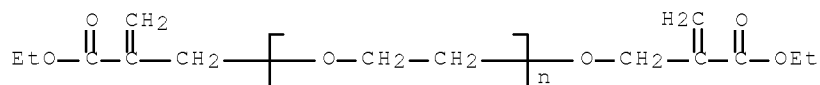
AB The crosslinked polyether is obtained by polymerization of ≥ 1 monomer selected from the group consisting of (a) (α -X-methyl) vinyl-electron withdrawing group (EWG), (α -X-methyl) vinyl-electron releasing group (ERG), or (α -X-methyl) vinyl-aryl, where X = O, S, polyethylene glycol (PEG), polypropylene glycol (PPG) or poly(THF), (b) a monomer polymerizable with a PEG, PPG or poly(THF) crosslinker having ≥ 1 (α -X-methyl) vinyl-EWG, (α -X-methyl) vinyl-ERG or (α -X-methyl) vinyl-aryl, where X = O, S, PEG, PPG, or poly(THF), (c) a PEG, PPG, or poly(THF) crosslinker having at least an acrylamide or a methacrylamide end group, and (d) mixts.

IT 333305-83-2P

(preparation and radical crosslinking, end group reduction or hydrolysis, bromination)

RN 333305-83-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(3-ethoxy-2-methylene-3-oxopropyl)-
 ω -(3-ethoxy-2-methylene-3-oxopropoxy)- (9CI) (CA INDEX NAME)



IC ICM C07D305-14

ICS C08G065-02; C08F261-06; C08F283-00; C08F002-18; C08J003-24;
C08F016-12

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 34

IT 333305-83-2P

(preparation and radical crosslinking, end group reduction or hydrolysis, bromination)

OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS
RECORD (15 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L19 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:120699 HCAPLUS Full-text

DOCUMENT NUMBER: 142:204753

TITLE: Pharmaceutical compositions of adsorbates of
amorphous drugs and lipophilic microphase-forming
materials

INVENTOR(S): Babcock, Walter Christian; Friesen, Dwayne Thomas;
Shanker, Ravi Mysore; Smithey, Daniel Tod

PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005011635	A2	20050210	WO 2004-IB2498	20040723
WO 2005011635	A3	20050317		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2532931	A1	20050210	CA 2004-2532931	20040723
EP 1653927	A2	20060510	EP 2004-744149	20040723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004013277	A	20061010	BR 2004-13277	20040723
JP 2007501218	T	20070125	JP 2006-522429	20040723
US 20050031693	A1	20050210	US 2004-910448	20040803
MX 2006001417	A	20060515	MX 2006-1417	20060203
PRIORITY APPLN. INFO.:			US 2003-492410P	P 20030804
			WO 2004-IB2498	W 20040723

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 11 Feb 2005

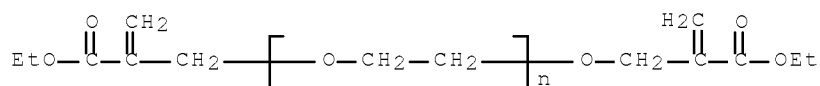
AB A pharmaceutical composition comprises a solid adsorbate comprising a drug adsorbed onto a substrate and a lipophilic microphase-forming material. The solid adsorbate may also be co-administered with a lipophilic microphase-forming material to an in vivo use environment. The compns. of the present invention enhance the concentration of drug in a use environment. A drug/substrate adsorbate containing 50% [2R,4S] 4-[(3,5-bis-trifluoromethyl-benzyl)-methoxycarbonyl-amino]-2-ethyl-6- trifluoromethyl-3,4-dihydro-2H-quinoline-1-carboxylic acid Et ester and 50% CAB-O-SIL M-5P was prepared. The maximum concentration of drug in solution during the first 90 min MDC90 and AUC90 was 17.0 µg/mL and 840 min*µg/mL.

IT ~~333305-83-2~~

(pharmaceutical compns. of adsorbates of amorphous drugs and lipophilic microphase-forming materials)

RN 333305-83-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-(3-ethoxy-2-methylene-3-oxopropyl)-ω-(3-ethoxy-2-methylene-3-oxopropoxy)- (9CI) (CA INDEX NAME)



IC ICM A61K009-16

CC 63-6 (Pharmaceuticals)

IT 56-81-5D, Glycerol, fatty acid esters 57-55-6D, Propylene glycol, glycerides 7384-98-7, Propylene glycol dicaprylate 9002-89-5 9002-96-4, α -Tocopheryl polyethylene glycol succinate 9003-39-8, Polyvinylpyrrolidone 9004-38-0, Cellulose acetate phthalate 9004-65-3, Hydroxypropyl methyl cellulose 9005-64-5 9005-65-6 9050-31-1, Hydroxypropyl methyl cellulose phthalate 12441-09-7D, Sorbitan, polyglyceryl esters 27194-74-7, Propylene glycolmonolaurate 37205-99-5, Carboxymethylethyl cellulose 52907-01-4, Cellulose acetate trimellitate 57107-95-6 70535-77-2, Hydroxypropyl methyl cellulose acetate succinate 119574-41-3 333305-83-2

(pharmaceutical compns. of adsorbates of amorphous drugs and lipophilic microphase-forming materials)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:732258 HCAPLUS Full-text

DOCUMENT NUMBER: 141:243056

TITLE: Polymerizable phosphoric acid ester derivatives for dental compositions

INVENTOR(S): Klee, Joachim E.; Lehmann, Uwe; Walz, Uwe; Liu, Huaibing

PATENT ASSIGNEE(S): Dentsply Detrey GmbH, Germany

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

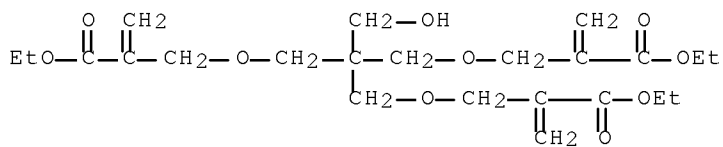
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1454911	A1	20040908	EP 2003-5174	20030307
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CA 2518202	A1	20040916	CA 2004-2518202	20040305
WO 2004078100	A2	20040916	WO 2004-EP2289	20040305
WO 2004078100	A3	20041028		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1601679	A2	20051207	EP 2004-717576	20040305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006520344	T	20060907	JP 2006-504563	20040305
US 20060246017	A1	20061102	US 2006-548362	20060626
PRIORITY APPLN. INFO.:			EP 2003-5174	A 20030307
			WO 2004-EP2289	W 20040305

ED Entered STN: 09 Sep 2004
 AB The present invention provides a polymerizable phosphoric acid ester derivative for use in dental compns. E.g., 2,2,2-tris(2,6-dioxa-4-methylene-5-oxo-octyl)ethanol phosphoric acid ester was prepared from pentaerythritol, Et chloromethacrylate, and then treatment with the product with POCl₃ and hydrolyzed.
 IT 752234-95-0P
 (polymerizable phosphoric acid ester derivs. for dental compns.)
 RN 752234-95-0 HCAPLUS
 CN 2-Propenoic acid, 2,2'-[[2-[[[2-(ethoxycarbonyl)-2-propenyl]oxy]methyl]-2-(hydroxymethyl)-1,3-propanediyl]bis(oxymethylene)]bis-, diethyl ester (9CI) (CA INDEX NAME)



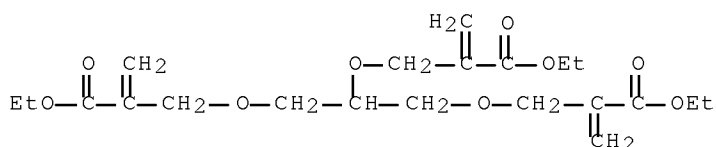
IC ICM C07F009-09
 ICS A61K006-08; C08F030-02
 CC 23-17 (Aliphatic Compounds)
 Section cross-reference(s): 63
 IT 39573-27-8P 752234-95-0P 752234-97-2P 752234-99-4P
 (polymerizable phosphoric acid ester derivs. for dental compns.)
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:138005 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:375551
 TITLE: Synthesis and photopolymerizations of new hydroxyl-containing dimethacrylate crosslinkers
 AUTHOR(S): Avci, Duygu; Mathias, Lon J.
 CORPORATE SOURCE: Department of Chemistry, Bogazici University, Istanbul, 34342, Turk.
 SOURCE: Polymer (2004), 45(6), 1763-1769
 CODEN: POLMAG; ISSN: 0032-3861
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 20 Feb 2004
 AB Two new hydroxyl-containing di(meth)acrylate monomers were synthesized from the reaction of Me α -chloromethylacrylate (MCMA) and of Et α -chloromethylacrylate (ECMA) with glycerol. The monomers were obtained as mixts. of two isomers in different ratios and in combination with the analogous trimethacrylate monomers. Each monomer was isolated by column chromatog. The photopolymn. of these isomer mixts. and the trimethacrylate monomers was investigated individually by photodifferential scanning calorimetry (photoDSC) at room temperature using 2,2'-dimethoxy-2-

phenylacetophenone (DMPA) as a photoinitiator. The effect of hydrogen bonding on the rates of polymns. and conversions was examined. The results obtained for the synthesized monomers were compared to the values obtained for com. monomers. The hydroxyl-containing dimethacrylates polymerize much faster and to considerably higher conversion than the trimethacrylate monomers. The maximum rates of polymerization of the hydroxyl-containing monomers were higher than that of hexanediol dimethacrylate (HDDMA), comparable to glycerol dimethacrylate and lower than hexanediol diacrylate (HDDA) and 3-(acryloyloxy)-2-hydroxypropyl methacrylate (AHM).

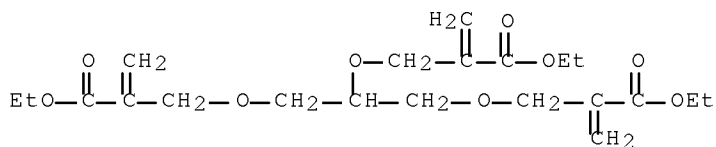
IT 684213-81-8
(in synthesis and photopolymn. of hydroxyl-containing dimethacrylate crosslinkers)
RN 684213-81-8 HCAPLUS
CN 2-Propenoic acid, 2,2',2''-[1,2,3-propanetriyl]tris(oxymethylene)]tris-, triethyl ester (9CI) (CA INDEX NAME)



IT ~~684213-88-5P~~
(synthesis and photopolymn. of hydroxyl-containing dimethacrylate crosslinkers)
RN 684213-88-5 HCAPLUS
CN 2-Propenoic acid, 2,2',2''-[1,2,3-propanetriyl]tris(oxymethylene)]tris-, triethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 684213-81-8
CMF C21 H32 O9



CC 35-3 (Chemistry of Synthetic High Polymers)
IT ~~684213-81-8~~ 684213-82-9
(in synthesis and photopolymn. of hydroxyl-containing dimethacrylate crosslinkers)
IT 27813-91-8P, Hexanediol dimethacrylate polymer 684213-84-1P
684213-86-3P 684213-87-4P ~~684213-88-5P~~
(synthesis and photopolymn. of hydroxyl-containing dimethacrylate crosslinkers)
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

10/567,430

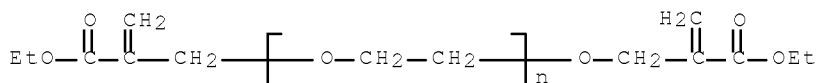
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2001:242854 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:287884
 TITLE: Photopolymerizable resin composition with
 α -oxymethylacrylic monomer for directly
 imaging lithographic plate
 INVENTOR(S): Kunida, Kazuhito
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 97 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001092127	A	20010406	JP 1999-268842	19990922
JP 4037015	B2	20080123		
EP 1091247	A2	20010411	EP 2000-119499	20000918
EP 1091247	A3	20010425		
EP 1091247	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6476092	B1	20021105	US 2000-665685	20000920
PRIORITY APPLN. INFO.:			JP 1999-268842	A 19990922

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 134:287884
 ED Entered STN: 06 Apr 2001
 AB The title photopolymerizable resin composition contains a photopolymn.
 initiator and photopolymerizable compound $\text{CH}_2=\text{C}(\text{C}(\text{Ra})(\text{Rb})(\text{X1}))(\text{COOX2})$ (X1-2 =
 hetero atom, halo; Ra-b = H, halo, cyano, etc.). The resin composition, which
 contains α -oxymethylacrylic monomer, provides both the excellent sensitivity
 and the storage ability.
 IT 333305-83-2P
 (photopolymerizable resin composition for directly imaging lithog.
 plate)
 RN 333305-83-2 HCAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -(3-ethoxy-2-methylene-3-oxopropyl)-
 ω -(3-ethoxy-2-methylene-3-oxopropoxy)- (9CI) (CA INDEX NAME)



IC ICM G03F007-027
 ICS C08F002-48; C08F016-24; G03F007-00; G03F007-028
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 IT 9003-35-4DP, Phenol-formaldehyde copolymer, reaction products with Me

10/567,430

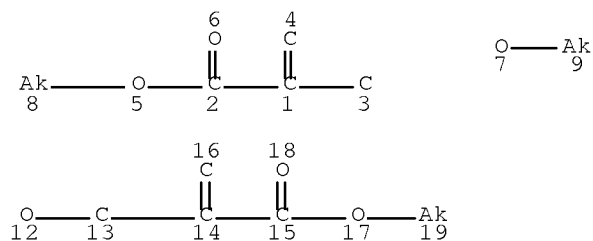
2-(hydroxymethyl)acrylate 27316-13-8P 30982-08-2P, 2-Propenoic
acid, 2-[(acetyloxy)methyl]-, methyl ester 127261-89-6P
151314-53-3P, 2-Propenoic acid, 2-methyl-, (benzoyloxy)methyl ester
170216-64-5P 333305-67-2P 333305-69-4P 333305-71-8P
333305-73-0P 333305-75-2P 333305-77-4P 333305-79-6P
333305-81-0P ~~333305-83-2P~~ 333305-85-4P 333305-87-6P
333305-89-8P 333305-91-2P 333305-93-4P 333305-95-6P
333305-97-8P 333305-99-0P 333306-01-7P 333306-03-9P
333306-05-1P 333306-07-3P 333306-09-5P 333306-11-9P
333306-13-1P 333306-15-3P 333306-17-5P 333306-18-6P
333306-21-1P 333306-24-4P 333306-28-8P 333306-31-3P
333306-34-6P 333306-36-8P 333306-38-0P 333306-40-4P
333306-42-6P 333306-44-8P 333331-74-1P,
m-Cresol-p-cresol-formaldehyde copolymer ester with
2-(bromomethyl)acrylic acid
(photopolymerizable resin composition for directly imaging lithog.
plate)

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS
RECORD (13 CITINGS)

=> d que 123

L7

STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8

CONNECT IS E1 RC AT 19

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

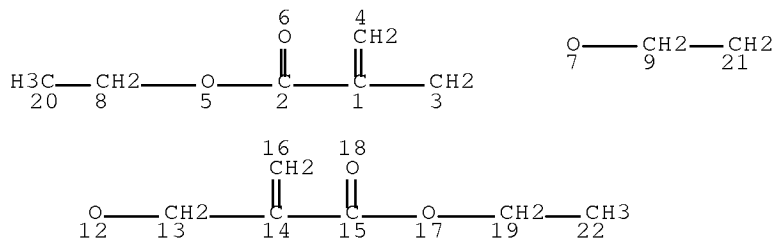
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L12 92 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L11 NOT (S OR N
OR P OR SI)/ELS

L14

STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

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L17 8 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L16 NOT 1-100/NR

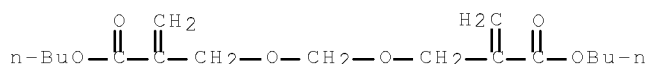
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OR P)/ELS

L19 7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L18

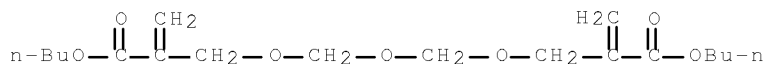
L20 66 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L12
 L21 61 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L20 AND (1840-2006
)/PRY,AY,PY
 L22 55 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L21 NOT L19
 L23 28 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L22 AND RACT/RL

=> d l23 1-28 ibib ed abs hitstr hitind

L23 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2008:1383636 HCAPLUS Full-text
 DOCUMENT NUMBER: 149:555126
 TITLE: The catalyzed α -hydroxyalkylation and
 α -aminoalkylation of activated olefins (the
 Morita-Baylis-Hillman reaction)
 AUTHOR(S): Ciganek, Engelbert
 CORPORATE SOURCE: Kennett Square, PA, USA
 SOURCE: Organic Reactions (Hoboken, NJ, United States) (1997), 51, No pp. given
 CODEN: ORHNBA
 URL: <http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME>
 PUBLISHER: John Wiley & Sons, Inc.
 DOCUMENT TYPE: Journal; General Review; (online computer file)
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 149:555126
 ED Entered STN: 19 Nov 2008
 AB A review of the article The catalyzed α -hydroxyalkylation and α -
 aminoalkylation of activated olefins (the Morita-Baylis-Hillman reaction).
 IT ~~127391-80-4P~~ 127391-81-5P
 (The Catalyzed α -Hydroxyalkylation and α -Aminoalkylation of
 Activated Olefins (The Morita-Baylis-Hillman Reaction))
 RN 127391-80-4 HCAPLUS
 CN 2-Propenoic acid, 2,2'-methylenebis(oxymethylene)bis-, 1,1'-dibutyl
 ester (CA INDEX NAME)



RN 127391-81-5 HCAPLUS
 CN 4,6,8,12-Tetraoxahexadecanoic acid, 2,10-bis(methylene)-11-oxo-, butyl
 ester (CA INDEX NAME)



CC 21-0 (General Organic Chemistry)
 IT 75-07-0P, Acetaldehyde, preparation 738-70-5P 925-60-0P
 1572-52-7P 2141-59-5P 2274-11-5P 3070-68-6P 5216-84-2P
 5621-43-2P 5621-44-3P 7176-67-2P 13544-11-1P 14045-44-4P
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19362-94-8P	19362-95-9P	19362-96-0P	19363-02-1P	19363-04-3P
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22289-07-2P	23873-54-3P	23873-58-7P	34214-06-7P	37442-40-3P
37442-44-7P	37442-45-8P	37442-49-2P	42842-87-5P	50592-73-9P
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87537-08-4P	88039-45-6P	88039-46-7P	89003-17-8P	89546-21-4P
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90866-20-9P	90866-21-0P	91309-59-0P	91309-61-4P	93032-43-0P
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120586-72-3P	121065-74-5P	123231-51-6P	123231-52-7P	
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126939-72-8P	127391-79-1P	127391-80-4P		

(The Catalyzed alpha-Hydroxyalkylation and alpha-Aminoalkylation of
Activated Olefins (The Morita-Baylis-Hillman Reaction))

IT	127391-81-5P	127489-24-1P	127870-75-1P	127870-76-2P
	127981-00-4P	128608-70-8P	128608-71-9P	128608-72-0P
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	128737-34-8P	128737-35-9P	128737-36-0P	128737-37-1P
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130977-41-2P	131140-15-3P	131423-32-0P	131423-33-1P
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132292-68-3P	132946-37-3P	133285-90-2P	133834-58-9P
133834-59-0P	133834-60-3P	133834-64-7P	135513-92-7P
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135513-99-4P	135514-01-1P	135514-05-5P	135638-64-1P
136028-44-9P	137104-41-7P	137104-50-8P	137104-52-0P
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139108-87-5P	139413-86-8P	139443-51-9P	139443-53-1P
139443-54-2P	139676-75-8P	139676-76-9P	139676-77-0P
139676-78-1P	139676-79-2P	139676-80-5P	139676-81-6P
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166411-00-3P	166411-02-5P	166411-03-6P	166411-04-7P
166411-05-8P	166411-06-9P	166411-10-5P	169050-91-3P
169050-92-4P	169258-46-2P	169258-47-3P	169258-48-4P
169258-52-0P	169258-64-4P	169682-77-3P	169690-49-7P
169899-57-4P			

(The Catalyzed alpha-Hydroxyalkylation and alpha-Aminoalkylation of
Activated Olefins (The Morita-Baylis-Hillman Reaction))

L23 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:204154 HCAPLUS Full-text
DOCUMENT NUMBER: 146:142958

TITLE: Straightforward Synthesis of
(R,S)- β -Methyleneaspartic Acid, an Inhibitor
of Glutamate-Aspartate Transaminase

AUTHOR(S): Galeazzi, Roberta; Martelli, Gianluca; Orena,
Mario; Rinaldi, Samuele

CORPORATE SOURCE: Dipartimento di Scienze dei Materiali e della
Terra, Universita Politecnica delle Marche,
Ancona, 60121, Italy

SOURCE: Monatshefte fuer Chemie (2006), 137(3),
357-363
CODEN: MOCMB7; ISSN: 0026-9247

PUBLISHER: Springer Wien

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:142958

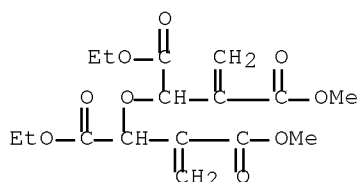
ED Entered STN: 07 Mar 2006

AB A Baylis-Hillman adduct of Me acrylate and Et glyoxalate was converted into
the trichloroacetimidate that in the presence of DABCO rearranged to the
corresponding trichloroacetamide. Eventually, hydrolysis under acidic
conditions, led to the hydrochloride of racemic β -methyleneaspartic acid.

IT 919520-82-4P
(preparation of methyleneaspartic acid, an inhibitor of
glutamate-aspartate transaminase)

RN 919520-82-4 HCAPLUS

CN Butanedioic acid, 2,2'-oxybis[3-methylene-, 1,1'-diethyl 4,4'-dimethyl
ester (CA INDEX NAME)



CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 7

IT 594-65-0P 73650-41-6P 856410-04-3P 919520-82-4P
919520-97-1P 919521-02-1P
(preparation of methyleneaspartic acid, an inhibitor of
glutamate-aspartate transaminase)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
RECORD (2 CITINGS)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L23 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:436093 HCAPLUS Full-text

DOCUMENT NUMBER: 143:96996

TITLE: Novel Oxa-di- π -methane and Norrish Type I
Reactions in the S2 (π, π^*) Excited State of
a Series of β, γ -Unsaturated Ketones

AUTHOR(S): Armesto, Diego; Ortiz, Maria J.; Agarrabeitia,
Antonia R.; Martin-Fontecha, Mar

CORPORATE SOURCE: Departamento de Quimica Organica I, Facultad de

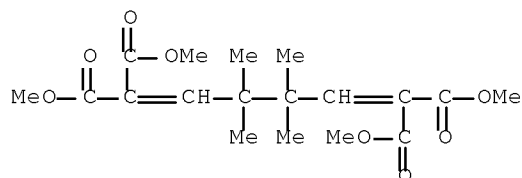
SOURCE: Ciencias Quimicas, Universidad Complutense,
 Madrid, 28040, Spain
 Organic Letters (2005), 7(13), 2687-2690
 CODEN: ORLEF7; ISSN: 1523-7060
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:96996
 ED Entered STN: 24 May 2005

AB β,γ -UNsatd. Me ketones with electron-withdrawing groups at the γ -position of the ene moiety undergo ODPM rearrangements and Norrish type I reactions on direct irradiation at 254 nm. The results are consistent with the involvement of alkene S2 (π,π^*) as reactive excited states in these processes.

IT ~~856216-15-4P~~
 (novel oxa-di- π -methane and Norrish Type I reactions in the S2 (π,π^*) excited state of β,γ -unsatd. ketones and substituent effects thereon)

RN 856216-15-4 HCAPLUS

CN 2,6-Octadienetetracarboxylic acid, 4,4,5,5-tetramethyl-,
 2,2,7,8-tetramethyl ester (CA INDEX NAME)



CC 22-6 (Physical Organic Chemistry)

Section cross-reference(s): 74

IT 64976-73-4P 66628-92-0P 134197-90-3P 197772-06-8P 856216-05-2P
 856216-06-3P 856216-07-4P 856216-08-5P 856216-09-6P
 856216-10-9P 856216-11-0P 856216-12-1P 856216-13-2P
 856216-14-3P ~~856216-15-4P~~ 856216-16-5P 856216-17-6P
 856216-18-7P 856216-19-8P 856216-20-1P 856216-21-2P

(novel oxa-di- π -methane and Norrish Type I reactions in the S2 (π,π^*) excited state of β,γ -unsatd. ketones and substituent effects thereon)

OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2003:173063 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:229268
 TITLE: Plate-making method of printing plate
 INVENTOR(S): Kunita, Kazuto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 148 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1288720	A1	20030305	EP 2002-19103	20020829
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2003066601	A	20030305	JP 2001-259725	20010829
<--				
JP 4235375	B2	20090311		
JP 2003064130	A	20030305	JP 2001-259726	20010829
<--				
US 20030190554	A1	20031009	US 2002-230088	20020829
<--				
US 6875557	B2	20050405		
PRIORITY APPLN. INFO.:			JP 2001-259725	A 20010829
			<--	
			JP 2001-259726	A 20010829
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 07 Mar 2003

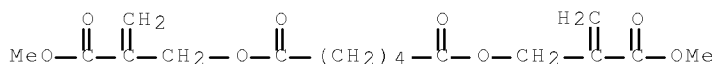
AB A plate-making method of a printing plate comprises exposing a printing plate precursor having a photosensitive layer comprising a photopolymerizable composition containing (1) a crosslinking agent having two ethylenic polymerizable groups and (2) a crosslinking agent having three or more ethylenic polymerizable groups, and development processing the exposed printing plate precursor with an alkali developer having a pH of ≤ 12.5 .

IT 333305-85-4P

(photopolymerizable composition for plate-making method of printing plate containing)

RN 333305-85-4 HCAPLUS

CN Hexanedioic acid, 1,6-bis[2-(methoxycarbonyl)-2-propen-1-yl] ester
(CA INDEX NAME)



IT 500769-95-9 500770-16-1 500773-31-9

(photopolymerizable composition for plate-making method of printing plate containing)

RN 500769-95-9 HCAPLUS

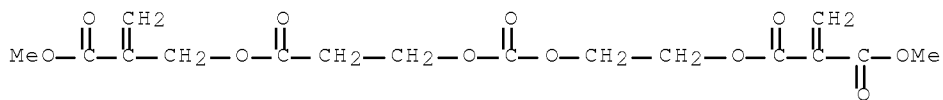
CN 4,7,9,13-Tetraoxahexadecanedioic acid,
2,15-bis(methylene)-3,8,12-trioxo-, dimethyl ester, polymer with
2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 500769-94-8

CMF C16 H20 O11

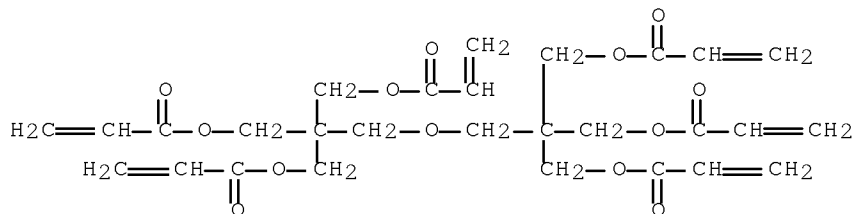
10/567,430



CM 2

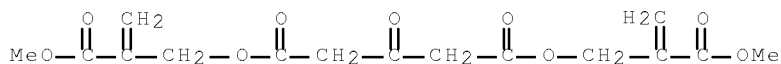
CRN 29570-58-9

CMF C28 H34 O13



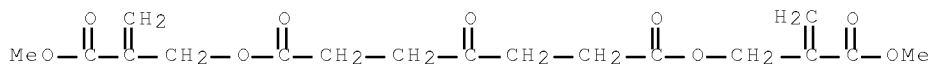
RN 500770-16-1 HCAPLUS

CN Pentanedioic acid, 3-oxo-, 1,5-bis[2-(methoxycarbonyl)-2-propen-1-yl]
ester (CA INDEX NAME)



RN 500773-31-9 HCAPLUS

CN Heptanedioic acid, 4-oxo-, 1,7-bis[2-(methoxycarbonyl)-2-propen-1-yl]
ester (CA INDEX NAME)



IC ICM G03F007-027

ICS G03F007-32; B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 28697-96-3P 51248-94-3P 127261-89-6P 333305-85-4P

333305-99-0P 333306-09-5P 500769-99-3P 500770-03-6P

500770-05-8P 500770-09-2P 500770-11-6P

(photopolymerizable composition for plate-making method of printing plate containing)

IT	29570-58-9	80937-22-0	124517-64-2	500769-71-1	500769-72-2
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10/567,430

500769-73-3 500769-74-4 500769-75-5 500769-77-7 500769-78-8
 500769-80-2 500769-82-4 500769-83-5 500769-85-7 500769-87-9
 500769-88-0 500769-89-1 500769-91-5 500769-92-6 500769-93-7
~~500769-95-9~~ 500769-97-1 500769-98-2 500770-00-3
 500770-01-4 500770-04-7 500770-06-9 500770-07-0 500770-08-1
 500770-10-5 500770-13-8 ~~500770-16-1~~ 500770-17-2
~~500773-31-9~~

(photopolymerizable composition for plate-making method of printing plate containing)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2003:147958 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:170651
 TITLE: Production method of α -heteromethacrylates and α -ammonium methacrylates
 INVENTOR(S): Kunita, Kazuto
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055305	A	20030226	JP 2001-239282	20010807
			<--	
PRIORITY APPLN. INFO.:			JP 2001-239282	20010807
			<--	

OTHER SOURCE(S): MARPAT 138:170651

ED Entered STN: 27 Feb 2003

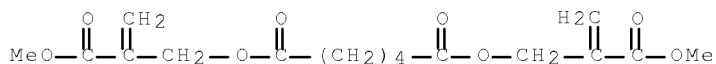
AB α -Ammonium methacrylates CH₂:CQ₁(CRaRbN+R₁R₂R₃)·hal- are used to prepare α -heteromethacrylates [I, CH₂:CQ₁(CRaRbX₁)] where Q₁ = CN or COX₂, X₁, X₂ = substituted oxy, substituted thio, or substituted amino, Ra, Rb = H or organic residue, R₁-3 = organic residue (R₁-3 may be bonded together to form a ring), and hal = halogen. Thus, methyl α -hydroxymethacrylate obtained from Me acrylate and formalin was reacted with PBr₃ to give Me α -bromomethacrylate, which was reacted with triethylamine to give Me α -triethylammonium methacrylate with over all yield 50%, which was reacted with benzyl alc. to give I (Ra, Rb = H, X₁ = OCH₂Ph, Q₁ = COOCH₃) with yield 80%.

IT ~~333305-85-4P~~

(preparation of α -heteromethacrylates from α -ammonium methacrylates)

RN 333305-85-4 HCAPLUS

CN Hexanedioic acid, 1,6-bis[2-(methoxycarbonyl)-2-propen-1-yl] ester (CA INDEX NAME)



IC ICM C07C067-31
 ICS C07B041-06; C07B043-04; C07B045-06; C07C069-73; C07C069-734;
 C07C069-75; C07C069-767; C07C219-08; C07C227-06; C07C229-30;
 C07C231-08; C07C233-47; C07C253-30; C07C255-15; C07C303-22;
 C07C309-12; C07C309-65; C07C309-66; C07C309-73

CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 23

IT 4432-44-4DP, Me or Et ester 9010-92-8DP, Methacrylic acid-styrene
 copolymer, reaction products with α -ammonium methacrylate
 compds. 25087-26-7DP, Polymethacrylic acid, reaction products with
 α -ammonium methacrylate compds. 30982-08-2P 153522-38-4P
 154201-91-9P 333305-69-4P ~~333305-85-4P~~ 333306-09-5P
 407582-28-9P 471266-79-2P 497249-98-6P 497250-05-2P
 (preparation of α -heteromethacrylates from α -ammonium
 methacrylates)

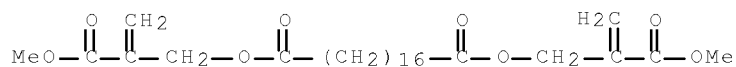
L23 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2003:27946 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:288012
 TITLE: Synthesis and photopolymerization kinetics of new
 flexible diacrylate and dimethacrylate
 crosslinkers based on C18 diacid
 AUTHOR(S): Avci, Duygu; Nobles, Jennifer; Mathias, Lon J.
 CORPORATE SOURCE: Department of Chemistry, Bogazici University,
 Bebek, tanbul, 80815, Turk.
 SOURCE: Polymer (2003), 44(4), 963-968
 CODEN: POLMAG; ISSN: 0032-3861
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 13 Jan 2003

AB A series of new di(meth)acrylate monomers was synthesized by reacting Me α -
 hydroxymethylacrylate (MHMA), Et α -hydroxymethylacrylate (EHMA), hydroxyethyl
 acrylate (HEA), and hydroxyethyl methacrylate (HEMA) with α,ω -C18 diacid
 chloride. Differential scanning calorimetry was used to study the
 photopolymn. behavior and reaction kinetics of the synthesized monomers
 subjected to photoinitiated polymerization The polymerization rates,
 conversions and kinetic consts. for propagation and termination were
 determined for each of the monomers. The maximum rate of polymns. of the
 diacrylate monomers was higher than that of the dimethacrylate monomers and
 followed the order: HDDA (1,6-hexanediol diacrylate) > HEA-C18 > EHMA-C18
 .apprx. HEMA-C18 > MHMA-C18. The total conversions obtained were 78, 75, 72,
 64, and 69% for MHMA-C18, EHMA-C18, HEMA-C18, HEA-C18, and HDDA, resp.,
 indicating comparable or higher conversions for methacrylates despite their
 lower rates of polymerization Propagation and termination mechanisms of the
 monomers were investigated by plotting propagation and termination rate
 consts. as a function of conversion.

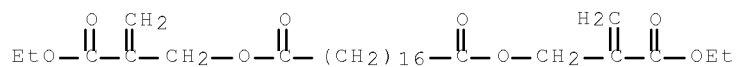
IT ~~504439-60-5P~~ 504439-61-6P
 (monomer; synthesis and photopolymn. kinetics of new flexible
 diacrylate and dimethacrylate crosslinkers based on
 octadecanedicaroxylid acid)

RN 504439-60-5 HCAPLUS
 CN Octadecanedioic acid, 1,18-bis[2-(methoxycarbonyl)-2-propen-1-yl]
 ester (CA INDEX NAME)



RN 504439-61-6 HCAPLUS

CN Octadecanedioic acid, 1,18-bis[2-(ethoxycarbonyl)-2-propen-1-yl] ester
(CA INDEX NAME)



IT ~~504439-64-9P~~ ~~504439-65-0P~~

(synthesis and photopolymerization of new flexible diacrylate and dimethacrylate crosslinkers based on octadecanedicarboxylic acid)

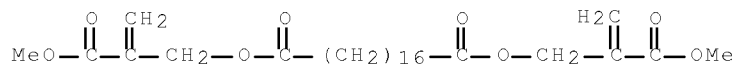
RN 504439-64-9 HCAPLUS

CN Octadecanedioic acid, bis[2-(methoxycarbonyl)-2-propenyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 504439-60-5

CMF C28 H46 O8



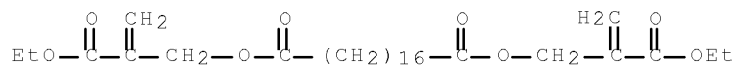
RN 504439-65-0 HCAPLUS

CN Octadecanedioic acid, bis[2-(ethoxycarbonyl)-2-propenyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 504439-61-6

CMF C30 H50 O8



CC 35-3 (Chemistry of Synthetic High Polymers)

IT ~~504439-58-1P~~ ~~504439-59-2P~~ ~~504439-60-5P~~
~~504439-61-6P~~

(monomer; synthesis and photopolymerization kinetics of new flexible diacrylate and dimethacrylate crosslinkers based on octadecanedicarboxylic acid)

IT ~~504439-62-7P~~ ~~504439-63-8P~~ ~~504439-64-9P~~

504439-65-0P

(synthesis and photopolymerization of new flexible diacrylate and dimethacrylate crosslinkers based on octadecanedicarboxylic acid)

OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:15796 HCAPLUS Full-text

DOCUMENT NUMBER: 138:80764

TITLE: Photothermographic printing materials with improved photopolymerization sensitivity and good storage stability

INVENTOR(S): Arai, Kinzo; Kunita, Kazuto; Fukushige, Yuichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003005378	A	20030108	JP 2001-191748	20010625
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PRIORITY APPLN. INFO.:			JP 2001-191748	20010625
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OTHER SOURCE(S): MARPAT 138:80764

ED Entered STN: 08 Jan 2003

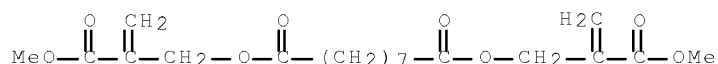
AB The printing material has on a support a recording layer containing photopolymerizable compns. containing compds. represented by CH₂:C(COX₂)CRArBx₁ (X₁, X₂ = hetero atom, halo; Ra, Rb = H, halo, CN, organic residue; X₁ and X₂, Ra and Rb, or X₁ and Ra or Rb may be bonded to each other and form ring structure), color-forming components A, and color-forming components B which react with A to form color. Preferably, A is an electron-donating dye precursor and B is an electron-accepting compds. More preferably, A is a diazonium salt compound and B is a coupler or A is a protected colorant (or leuco dye) and B is a deprotecting agent. Inhibition of photoradical polymerization by O has been suppressed.

IT 441793-44-8 460352-39-0 482340-80-7

(photothermog. printing materials with improved photopolymerization sensitivity and good storage stability)

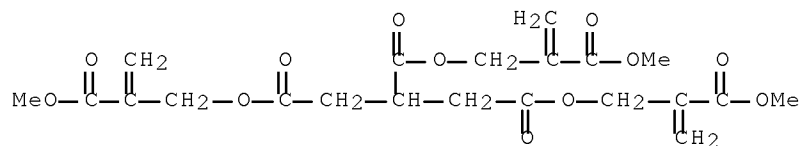
RN 441793-44-8 HCAPLUS

CN Nonanedioic acid, 1,9-bis[2-(methoxycarbonyl)-2-propen-1-yl] ester (CA INDEX NAME)



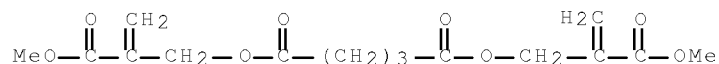
RN 460352-39-0 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid,
1,2,3-tris[2-(methoxycarbonyl)-2-propen-1-yl] ester (CA INDEX NAME)



RN 482340-80-7 HCAPLUS

CN Pentanedioic acid, 1,5-bis[2-(methoxycarbonyl)-2-propen-1-yl] ester
(CA INDEX NAME)



IC ICM G03F007-26

ICS G03C001-72

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 143129-14-0 441793-44-8 460352-39-0

482340-80-7

(photothermog. printing materials with improved photopolymn.
sensitivity and good storage stability)

L23 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:714261 HCAPLUS Full-text

DOCUMENT NUMBER: 137:255344

TITLE: Radical polymerizable compounds for image forming materials

INVENTOR(S): Kunita, Kazuto

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1241528	A2	20020918	EP 2002-5350	20020314
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EP 1241528	A3	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002275129	A	20020925	JP 2001-72433	20010314
			<--	
CN 1377900	A	20021106	CN 2002-105636	20020314
			<--	
CN 1250574	C	20060412		
US 20030008996	A1	20030109	US 2002-96879	20020314
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US 6787622	B2	20040907		

PRIORITY APPLN. INFO.:

JP 2001-72433

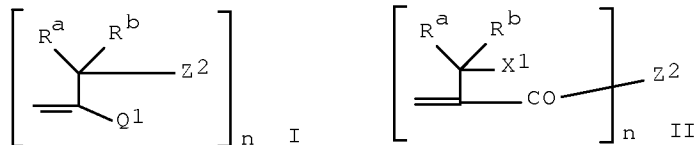
A 20010314

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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 20 Sep 2002

GI

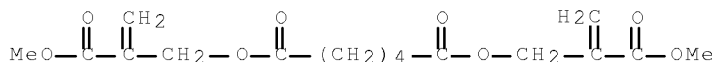


AB A radical polymerizable compound comprises a structure represented by:
 RaRbX3C-C(=C)Q1, I or II (X3 = heterocyclic group that is connected through a hetero atom included in it; Q1 = CN, COX2; X2 = hydroxy group, substituted oxy group, substituted thio group, amino group, a substituted amino group, a heterocyclic group that is connected through a hetero atom included in it or a halogen atom; Ra, b = H, halogen atom, cyano group, organic residue; X1 represents a substituted oxy group, a substituted amino group, a heterocyclic group that is connected through a hetero atom included therein or a halogen atom; Z1 and Z2 = n-valent connecting group having at least 6 carbon atoms, in which the n's connecting parts are all hetero atoms; Ra and Rb, X1 and Ra or Rb, X3 and Ra or Rb, or Q1 and Ra or Rb may combine with each other to form a cyclic structure; and n = 2-6). The present invention provides a radical polymerization compound for use in a photo-radical polymerization composition satisfying both high sensitivity and excellent preservation stability, which is promising in image forming techniques due to the highest sensitivity.

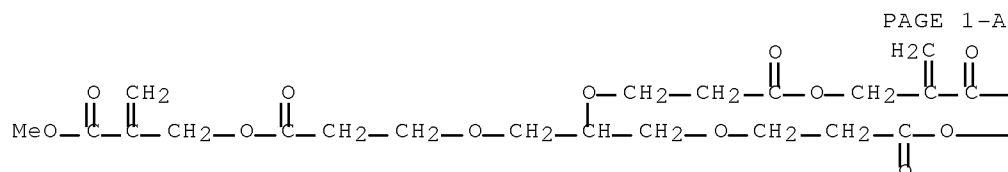
IT 333305-85-4P 460352-41-4P

(radical polymerizable compds. for image forming materials)

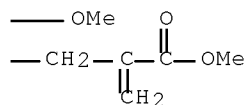
RN 333305-85-4 HCAPLUS

CN Hexanedioic acid, 1,6-bis[2-(methoxycarbonyl)-2-propen-1-yl] ester
(CA INDEX NAME)

RN 460352-41-4 HCAPLUS

CN 4,8,12,16-Tetraoxanonadecanedioic acid,
 10-[3-[[2-(methoxycarbonyl)-2-propen-1-yl]oxy]-3-oxopropoxy]-2,18-bis(methylene)-5,15-dioxo-, 1,19-dimethyl ester (CA INDEX NAME)

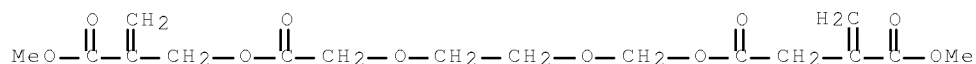
PAGE 1-A



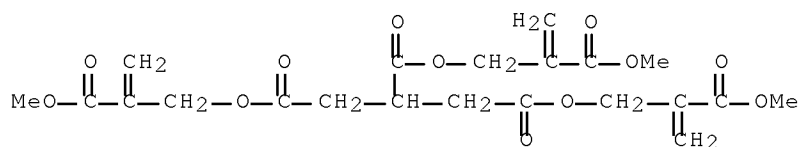
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IT      460352-37-8P      460352-39-0P      460352-40-3P
        (radical polymerizable compds. for image forming materials)
RN      460352-37-8      HCAPLUS
CN      4,7,10,12-Tetraoxahexadecanedioic acid,
        2,15-bis(methylene)-5,13-dioxo-, 1,16-dimethyl ester (CA INDEX NAME)

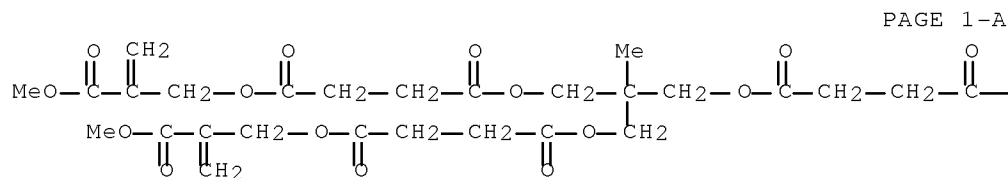
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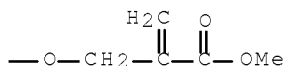


RN	460352-39-0	HCAPLUS	
CN	1,2,3-Propanetricarboxylic acid,		
	1,2,3-tris[2-(methoxycarbonyl)-2-propen-1-yl] ester	(CA INDEX NAME)	



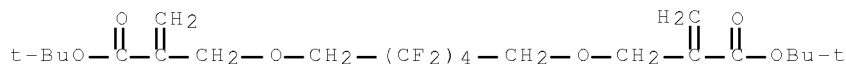
RN	460352-40-3	HCAPLUS
CN	4,9,13,18-Tetraoxaheneicosanedioic acid, 11-[[4-[[2-(methoxycarbonyl)-2-propen-1-yl]oxy]-1,4- dioxobutoxy]methyl]-11-methyl-2,20-bis(methylene)-5,8,14,17-tetraoxo-, 1,21-dimethyl ester (CA INDEX NAME)	





IC ICM G03F007-027
 ICS C07D277-74; C07C255-15; C07C271-20; C07C271-28; C07C069-73
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 IT 333305-69-4P ~~333305-85-4P~~ ~~460352-41-4P~~
 (radical polymerizable compds. for image forming materials)
 IT 460352-34-5P 460352-35-6P 460352-36-7P ~~460352-37-8P~~
~~460352-38-9P~~ ~~460352-39-0P~~ ~~460352-40-3P~~
 (radical polymerizable compds. for image forming materials)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
 RECORD (1 CITINGS)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L23 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2001:662144 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:358506
 TITLE: Syntheses and evaluation of photopolymerized
 fluorinated acrylates as potential non-wettable
 coatings
 AUTHOR(S): Shemper, Bianca S.; Mathias, Lon J.
 CORPORATE SOURCE: Department of Polymer Science, University of
 Southern Mississippi, Hattiesburg, MS, 39406-0076,
 USA
 SOURCE: Polymer Preprints (American Chemical Society,
 Division of Polymer Chemistry) (2001),
 42(2), 461-462
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer
 Chemistry
 DOCUMENT TYPE: Journal; (computer optical disk)
 LANGUAGE: English
 ED Entered STN: 11 Sep 2001
 AB A perfluoroalkyl ether-substituted hydroxymethacrylic acid was prepared and
 its photopolymn. was studied. A perfluoroalkyl ether-substituted
 dihydroxymethacrylic acid, which serves as a crosslinker for the polymns., was
 also prepared These compds. are potential low-surface energy polymeric
 materials.
 IT ~~372510-06-0P~~
 (preparation and hydrolysis of)
 RN 372510-06-0 HCAPLUS
 CN 2-Propenoic acid, 2,2'-[(2,2,3,3,4,4,5,5-octafluoro-1,6-
 hexanediyl)bis(oxyethylene)]bis-, bis(1,1-dimethylethyl) ester (9CI)
 (CA INDEX NAME)



CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

IT 372510-05-9P ~~372510-06-0P~~

(preparation and hydrolysis of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L23 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:443341 HCAPLUS Full-text

DOCUMENT NUMBER: 127:65502

ORIGINAL REFERENCE NO.: 127:12526h,12527a

TITLE: Process for preparation of bridging vinyl
compounds by reacting alcohols with carbonyl
compounds

INVENTOR(S): Yurugi, Keiji; Nakagawa, Koichi; Kita, Yuichi

PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 09157204	A	19970617	JP 1995-324518	19951213
			<--	
PRIORITY APPLN. INFO.:			JP 1995-324518	19951213
			<--	

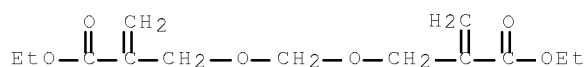
OTHER SOURCE(S): CASREACT 127:65502

ED Entered STN: 17 Jul 1997

AB Characterized is a process for preparation of the title compds. R15OCR2R3OR16 (I; R15, R16 = vinyl-containing radical; R2, R3 = H, organic radical) by reacting R1OH (R1 = vinyl-containing radical) with carbonyl compds. R2COR3 (R2, R3 = same as above) in the presence of antioxidants. I are useful monomers in the production of bridging polymers. Thus, CH₂:C(CH₂OH)CO₂Et was reacted with paraformaldehyde in the presence of methoxyhydroquinone, p-TsOH, and 2,2'-oxamidebis-[ethyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] at 90° for 3 h to give 72% di-Et 4,6-dioxy-2,8-dimethylene-1,9-nonanedicarboxylate with 91% selectivity.

IT ~~132750-40-4P~~(process for preparation of bridging vinyl compds. by reacting alcs.
with carbonyl compds.)

RN 132750-40-4 HCAPLUS

CN 2-Propenoic acid, 2,2'-[methylenebis(oxymethylene)]bis-, diethyl ester
(9CI) (CA INDEX NAME)

IC ICM C07C043-303

ICS C07C041-48

CC 23-9 (Aliphatic Compounds)
 Section cross-reference(s): 35
 IT 132750-40-4P
 (process for preparation of bridging vinyl compds. by reacting alcs.
 with carbonyl compds.)

L23 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1997:429595 HCAPLUS Full-text
 DOCUMENT NUMBER: 127:50286
 ORIGINAL REFERENCE NO.: 127:9593a,9596a
 TITLE: Process for preparation of bridging vinyl
 compounds by reacting alcohols with acetals
 INVENTOR(S): Yurugi, Keiji; Nakagawa, Koichi; Kita, Yuichi
 PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 09157203	A	19970617	JP 1995-324514	19951213
			<--	
PRIORITY APPLN. INFO.:			JP 1995-324514	19951213
			<--	

OTHER SOURCE(S): CASREACT 127:50286

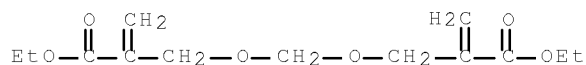
ED Entered STN: 11 Jul 1997

AB Characterized is a process for preparation of the title compds. R15OCR2R3OR16
 (I; R15, R16 = vinyl-containing radical; R2, R3 = H, organic radical) by
 reacting R1OH (R1 = vinyl-containing radical) with acetal R5OCR2R3OR4 (R4, R5
 = H, organic radical) in the presence of antioxidants. I are useful materials
 in the production of bridging polymers. Thus, CH2:C(CH2OH)CO2Et was reacted
 with (EtO)2CH2 in the presence of methoxyhydroquinone, p-TsOH, and 2,2'-
 oxamidebis-[ethyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] at 90° for
 3 h to give 66% di-Et 4,6-dioxy-2,8-dimethylene-1,9-nonanedicarboxylate with
 88% selectivity.

IT 132750-40-4P
 (process for preparation of bridging vinyl compds. by reacting alcs.
 with acetals)

RN 132750-40-4 HCAPLUS

CN 2-Propenoic acid, 2,2'-[methylenebis(oxyethylene)]bis-, diethyl ester
 (9CI) (CA INDEX NAME)



IC ICM C07C043-303

ICS C07C041-48; C07C043-315; C07C067-29; C07C067-31; C07C069-54;
 C07C069-732; C07C069-734

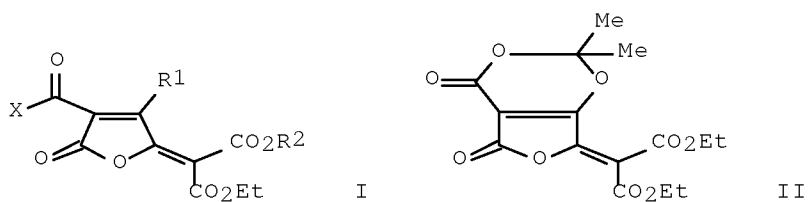
CC 23-9 (Aliphatic Compounds)

Section cross-reference(s): 35

IT 132750-40-4P

(process for preparation of bridging vinyl compds. by reacting alcs.
 with acetals)

L23 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1995:203161 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:31233
 ORIGINAL REFERENCE NO.: 122:6167a,6170a
 TITLE: Derivatives of oxalyldimalonic acid
 AUTHOR(S): Stachel, Hans-Dietrich; Schorp, Matthias; Maier, Ludwig; Dandl, Klaus
 CORPORATE SOURCE: Institut Pharmazie Lebensmittelchemie, Universitaet Muenchen, Muenchen, D-80333, Germany
 SOURCE: Liebigs Annalen der Chemie (1994), (11), 1121-7
 CODEN: LACHDL; ISSN: 0170-2041
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 ED Entered STN: 19 Nov 1994
 GI

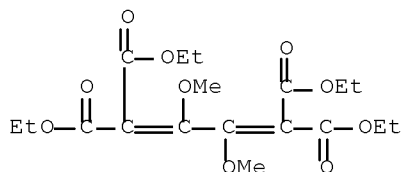


AB Starting with furanones and mesoxalic acid esters, the compds. I (R1 = halo, hydroxy, amino, etc.; R2 = H, Et; X = OEt, hydroxy, amino, etc.) were prepared (as monolactones of the title compound). A versatile intermediate is the dioxinone II (a masked acylketene intermediate).

IT 159765-13-6P
 (preparation of butadienetetracarboxylate derivative from furanone and mesoxalate)

RN 159765-13-6 HCAPLUS

CN 2,4-Hexadiene-2,2,5,5-tetracarboxylic acid, 3,4-dimethoxy-, 1,2,5,6-tetraethyl ester (CA INDEX NAME)



CC 27-6 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 28

IT 7294-16-8P 159764-99-5P 159765-00-1P 159765-01-2P 159765-03-4P
 159765-05-6P 159765-06-7P 159765-08-9P 159765-10-3P
 159765-13-6P 159765-17-0P 159765-19-2P 159765-20-5P

10/567,430

159765-21-6P 159765-22-7P 159765-23-8P 159765-24-9P

(preparation of butadienetetracarboxylate derivative from furanone and mesoxalate)

OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

L23 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1994:135232 HCAPLUS Full-text

DOCUMENT NUMBER: 120:135232

ORIGINAL REFERENCE NO.: 120:23857a,23860a

TITLE: Poly(α -hydroxymethylacrylates):
esterification and crosslinking reactions

AUTHOR(S): Avci, Duygu; Kusefoglu, Selim

CORPORATE SOURCE: Kimya Bolumu, Bogazici Univ., Bebek-Istanbul,
Turk.

SOURCE: Kim. Kim. Muhendisligi Semp., 8th (1992)
, Volume 3, 239-44. Editor(s): Aydin, Adnan.
Marmara Univ. Fac. Sci. Lett.: Istanbul, Turk.
CODEN: 59AOAY

DOCUMENT TYPE: Conference

LANGUAGE: Turkish

ED Entered STN: 19 Mar 1994

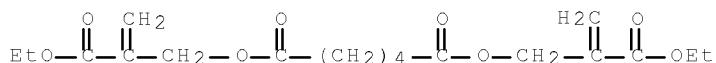
AB Et α -hydroxymethylacrylate (I) was esterified with hexanoyl chloride in 80% yield to give Et (α -hexanoyloxymethyl)acrylate (II) that was polymerized to give a soluble thermoplastic polymer with glass transition at 15-20° and melting transition at 47.5°. Copolymn. of I and II in various monomer ratios gave thermoplastic polymers with solubility enhanced by internal lubrication of the long alkyl pendent group. Copolymers of II with styrene were also prepared Esterification of I with adipoyl chloride gave bisadipoate that can be used as a crosslinking agent. Crosslinked insol. polymers were prepared from bisadipoate with Me methacrylate, styrene, and I.

IT 152013-35-9

(crosslinking agent, for Et hydroxymethylacrylate derivative polymers,
preparation of)

RN 152013-35-9 HCAPLUS

CN Hexanedioic acid, 1,6-bis[2-(ethoxycarbonyl)-2-propen-1-yl] ester (CA
INDEX NAME)



IT 152013-36-0P 152013-37-1P 152013-39-3P

(preparation and characterization of crosslinked)

RN 152013-36-0 HCAPLUS

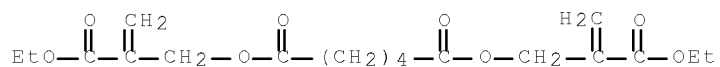
CN Hexanedioic acid, bis[2-(ethoxycarbonyl)-2-propenyl] ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 152013-35-9

CMF C18 H26 O8

10/567,430



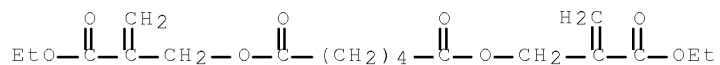
RN 152013-37-1 HCAPLUS

CN Hexanedioic acid, bis[2-(ethoxycarbonyl)-2-propenyl] ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 152013-35-9

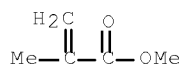
CMF C18 H26 O8



CM 2

CRN 80-62-6

CMF C5 H8 O2



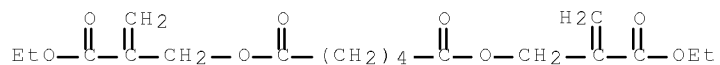
RN 152013-39-3 HCAPLUS

CN Hexanedioic acid, bis[2-(ethoxycarbonyl)-2-propenyl] ester, polymer with ethyl 2-(hydroxymethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 152013-35-9

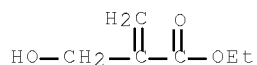
CMF C18 H26 O8



CM 2

CRN 10029-04-6

CMF C6 H10 O3



CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 152013-35-9
 (crosslinking agent, for Et hydroxymethylacrylate derivative polymers,
 preparation of)
 IT 152013-36-0P 152013-37-1P 152013-38-2P
 152013-39-3P
 (preparation and characterization of crosslinked)

L23 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1991:164845 HCAPLUS Full-text
 DOCUMENT NUMBER: 114:164845
 ORIGINAL REFERENCE NO.: 114:27909a,27912a
 TITLE: Difunctional and multifunctional monomers capable
 of cyclopolymerization
 AUTHOR(S): Stansbury, J. W.
 CORPORATE SOURCE: Polym. Div., Natl. Inst. Stand. Technol.,
 Gaithersburg, MD, 20899, USA
 SOURCE: Macromolecules (1991), 24(8), 2029-35
 CODEN: MAMOBX; ISSN: 0024-9297
 DOCUMENT TYPE: Journal
 LANGUAGE: English

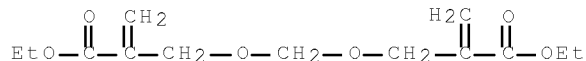
ED Entered STN: 03 May 1991

AB The reaction of acrylate esters with paraformaldehyde in presence of
 diazabicyclo[2.2.2]octane produced novel ether-fused dimethacrylatelike
 monomers that could undergo cyclopolymerization. The influence of the pendent ester
 functionality on the preparation and polymerization of these monomers was
 examined. While bulky ester groups generally decreased the rate of reaction in
 monomer preparation, the more hindered monomers polymerized through the
 available intramolecular cyclization pathway with greater efficiency than did
 monomers without significant steric constraints. Polymers in solution led to
 mainly cyclized, soluble polymers. Bulk polymers provided brittle, crosslinked
 polymers with high degrees of conversion. Multifunctional oligomers based on
 the same 1,6-diene substructure were prepared. Polymerization of the oligomers
 produced tough, highly crosslinked polymers.

IT 132750-40-4P 132750-41-5P
 (formation of, in di-Et oxybismethacrylate preparation)

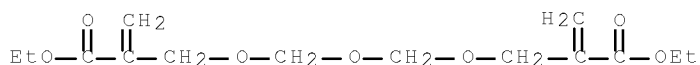
RN 132750-40-4 HCAPLUS

CN 2-Propenoic acid, 2,2'-[methylenebis(oxyethylene)]bis-, diethyl ester
 (9CI) (CA INDEX NAME)



RN 132750-41-5 HCAPLUS

CN 4,6,8,12-Tetraoxatetradecanoic acid, 2,10-bis(methylene)-11-oxo-,
 ethyl ester (CA INDEX NAME)



CC 35-2 (Chemistry of Synthetic High Polymers)
 IT 121044-63-1P 132750-40-4P 132750-41-5P
 (formation of, in di-Et oxybismethacrylate preparation)
 OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS
 RECORD (16 CITINGS)

L23 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1990:236009 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:236009
 ORIGINAL REFERENCE NO.: 112:39823a,39826a
 TITLE: Acrylate ester ether crosslinking monomers and
 their preparation
 INVENTOR(S): Mathias, Lon J.; Kusefoglu, Selim H.
 PATENT ASSIGNEE(S): University of Southern Mississippi, USA
 SOURCE: U.S., 6 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4889948	A	19891226	US 1987-86589	19870818
			<--	
US 4999410	A	19910312	US 1989-455955	19891222
			<--	
PRIORITY APPLN. INFO.:			US 1987-86589	A3 19870818
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 112:236009

ED Entered STN: 23 Jun 1990

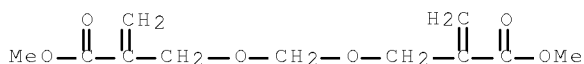
AB Difunctional monomers $\text{CH}_2:\text{CRCH}_2\text{O}(\text{CH}_2\text{O})_n\text{CH}_2\text{CR}:\text{CH}_2$ [R = CO₂H, CN, carboxyalkyl, carbonylalkyl, (un)substituted CONH₂; n = 0-4] are prepared and can be used as crosslinking agents for thermoplastic polymers. Thus, Me acrylate 1450, paraformaldehyde 180, and DABCO 20 g were mixed and stirred at room temperature for 10 days, producing MeO₂CC(:CH₂)CH₂OH (I) 49, MeO₂CC(:CH₂)CH₂OCH₂C(:CH₂)CO₂Me 22, MeO₂CC(:CH₂)CH₂OCH₂OCH₂C(:CH₂)CO₂Me 18, and MeO₂CC(:CH₂)CH₂OCH₂OCH₂OCH₂C(:CH₂)CO₂Me 6%. Distillation of the reaction mixture (60-65°/0.05 mm) gave 275 g I.

IT 109669-54-7P 109669-55-8P 127391-80-4P
 127391-81-5P

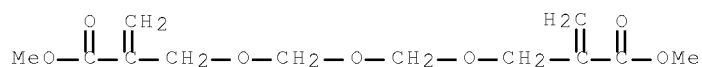
(preparation of)

RN 109669-54-7 HCAPLUS

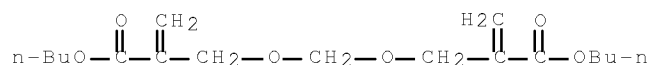
CN 2-Propenoic acid, 2,2'-[methylenebis(oxyethylene)]bis-, dimethyl ester (9CI) (CA INDEX NAME)



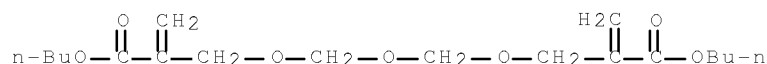
RN 109669-55-8 HCAPLUS
 CN 4,6,8,12-Tetraoxatridecanoic acid, 2,10-bis(methylene)-11-oxo-, methyl ester (CA INDEX NAME)



RN 127391-80-4 HCAPLUS
 CN 2-Propenoic acid, 2,2'-methylenebis(oxymethylene)bis-, 1,1'-dibutyl ester (CA INDEX NAME)



RN 127391-81-5 HCAPLUS
 CN 4,6,8,12-Tetraoxahexadecanoic acid, 2,10-bis(methylene)-11-oxo-, butyl ester (CA INDEX NAME)



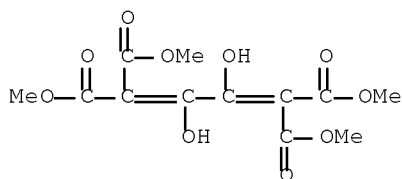
IC ICM C07C069-73
 INCL 560181000
 CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 23
 IT 23873-58-7P ~~109669-54-7P~~ ~~109669-55-8P~~
 109669-57-0P 111964-98-8P 115597-68-7P 118363-19-2P
 127340-00-5DP, partially hydrolyzed ~~127391-80-4P~~
~~127391-81-5P~~

(preparation of)

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1990:209773 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:209773
 ORIGINAL REFERENCE NO.: 112:35239a,35242a
 TITLE: Adamantanoid chelate complexes. 2. Tetranuclear chelate(4-) ions of divalent metals (manganese, cobalt, nickel) with idealized T-symmetry from spontaneous self-organization
 AUTHOR(S): Saalfrank, Rolf W.; Stark, Armin; Bremer, Matthias; Hummel, Hans Ulrich
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg,

SOURCE: Erlangen, D-8520, Germany
 Angewandte Chemie (1990), 102(3), 292-5
 CODEN: ANCEAD; ISSN: 0044-8249
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 ED Entered STN: 26 May 1990
 AB (NH₄)₄[M₄L₆] [H₂L = (RO₂C)₂CHC(O)C(O)CH(CO₂R)₂ (R = Me); M = Mn, Co, Ni] were prepared by reaction of di-Me malonate and MeLi in THF, followed by addition of MCl₂ and oxalyl chloride. Hydrolysis of (NH₄)₄[Ni₄L₆] gave (MeO₂C)₂C:C(OH)C(OH):C(CO₂Me)₂ (I). The reaction of I with Me₃SiBr in the presence of pyridine gave (MeO₂C)₂C:C(OR₁)C(OR₁):C(CO₂Me)₂ (II; R₁ = SiMe₃) which reacted with BzCl in the presence of ZnBr₂ to give II (R₁ = Bz). H₂L (R = Et) reacted with MCl₂ to give (NH₄)₄[M₄L₆] (R = Et). (NH₄)₄[M₄L₆] (M = Mn, Co; R = Me) are monoclinic, space group C2/c, Z = 4, R = 0.077 and 0.059, R_w = 0.080 and 0.063, resp. [M₄L₆]⁴⁻ have an adamantane-type structure.
 IT 125568-27-6P
 (preparation and reaction of, with trimethylsilyl bromide in presence of pyridine)
 RN 125568-27-6 HCAPLUS
 CN 2,4-Hexadiene-2,2,5,5-tetracarboxylic acid, 3,4-dihydroxy-, 1,2,5,6-tetramethyl ester (CA INDEX NAME)

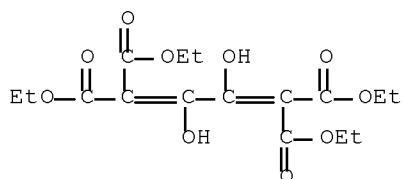


CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 23, 75
 IT 125568-27-6P
 (preparation and reaction of, with trimethylsilyl bromide in presence of pyridine)
 OS.CITING REF COUNT: 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)

L23 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1988:521477 HCAPLUS Full-text
 DOCUMENT NUMBER: 109:121477
 ORIGINAL REFERENCE NO.: 109:20061a,20064a
 TITLE: Adamantanoid chelate complexes. 1. The first adamantanoid alkaline earth metal chelate complex: synthesis, structure and reactivity
 AUTHOR(S): Saalfrank, Rolf W.; Stark, Armin; Peters, Karl; Von Schnering, Hans Georg
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
 SOURCE: Angewandte Chemie (1988), 100(6), 878-80
 CODEN: ANCEAD; ISSN: 0044-8249
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 ED Entered STN: 01 Oct 1988
 AB (NH₄)₄Mg₄L₆ [I; H₂L = (EtO₂C)₂CHC(O)C(O)CH(CO₂Et)₂] was prepared from di-Et malonate, MeMgI, and oxalyl chloride in 1:1:0.25 molar ratios. I was

characterized from IR and ^1H and ^{13}C NMR spectra. $\text{I.Me}_2\text{C}(\text{OH})\text{C}(\text{OH})\text{Me}_2$ crystallized in triclinic space group $P_{21}2_12_1$, with a 1875.6(12), b 2007.2(7), c 1777.1(9) pm, α 103.93(3), β 93.50(5), γ 90.45(4)°, $Z = 2$, $R = 0.144$. Each edge of the tetrahedral nucleus of Mg^{2+} ions is bridged by a tetradentate L^{2-} ion such that each Mg is octahedrally coordinated by 6 O atoms. I was hydrolyzed to the enolic form of H_2L which was derivatized by Me_3SiBr in presence of pyridine.

IT 114446-12-7P
(preparation and reaction of, with trimethylsilyl bromide)
RN 114446-12-7 HCAPLUS
CN 2,4-Hexadiene-2,2,5,5-tetracarboxylic acid, 3,4-dihydroxy-,
1,2,5,6-tetraethyl ester (CA INDEX NAME)



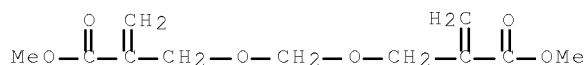
CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75
IT 114446-12-7P
(preparation and reaction of, with trimethylsilyl bromide)
OS.CITING REF COUNT: 38 THERE ARE 38 CAPLUS RECORDS THAT CITE THIS
RECORD (39 CITINGS)

L23 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1987:478279 HCAPLUS Full-text
DOCUMENT NUMBER: 107:78279
ORIGINAL REFERENCE NO.: 107:12901a,12904a
TITLE: New difunctional methacrylate ethers and acetals:
readily available derivatives of
 α -hydroxymethyl acrylates
AUTHOR(S): Mathias, Lon J.; Kusefoglu, Selim H.
CORPORATE SOURCE: Dep. Polym. Sci., Univ. Southern Mississippi,
Hattiesburg, MS, 39406-0076, USA
SOURCE: Macromolecules (1987), 20(8), 2039-41
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English

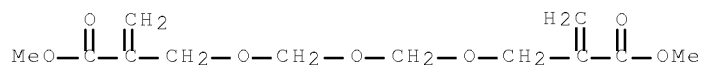
ED Entered STN: 05 Sep 1987

AB The reaction of Me acrylate with paraformaldehyde catalyzed by Dabco yielded Me α -(hydroxymethyl)acrylate (I) as well as the dimethacrylate ether (II) and acetal adducts of I with 1 and 2 HCHO units. II, which could be synthesized from purified I by heating with catalytic amts. of Dabco, underwent radical polymerization in DMSO to give a clear, tough swollen gel. The mechanism of formation of II and the acetals was discussed.

IT 109669-54-7P 109669-55-8P
(preparation of)
RN 109669-54-7 HCAPLUS
CN 2-Propenoic acid, 2,2'-[methylenebis(oxyethylene)]bis-, dimethyl
ester (9CI) (CA INDEX NAME)

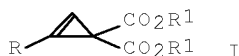


RN 109669-55-8 HCAPLUS
 CN 4,6,8,12-Tetraoxatridecanoic acid, 2,10-bis(methylene)-11-oxo-, methyl ester (CA INDEX NAME)

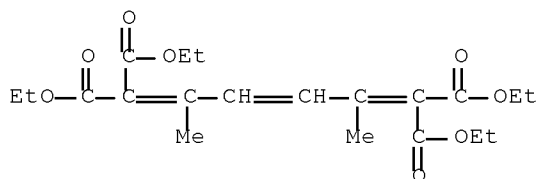


CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37
 IT 109669-53-6P 109669-54-7P 109669-55-8P
 (preparation of)
 OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L23 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1987:49630 HCAPLUS Full-text
 DOCUMENT NUMBER: 106:49630
 ORIGINAL REFERENCE NO.: 106:8211a,8214a
 TITLE: Synthesis of cyclopropene-3,3-dicarboxylic esters
 AUTHOR(S): Paredes, Rodrigo; Barba, Luz E.; Bastos, Holger; Garavito, Diego
 CORPORATE SOURCE: Dep. Quim., Univ. Valle, Cali, 25360, Colombia
 SOURCE: Revista Latinoamericana de Quimica (1985), 16(2-3), 94-8
 CODEN: RLAQA8; ISSN: 0370-5943
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 21 Feb 1987
 GI

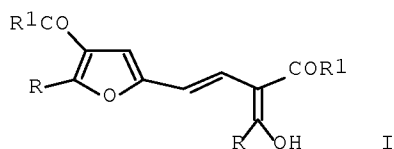


AB Cyclopropenedicarboxylates I (R = H, Me, Et, Ph; R1 = Et, Me) were prepared in up to 48% yield by treating BrCH2CR:C(CO2R1)2 with Me3COK in Me3COH or Me2SO. Only a small amount of I (R = H, R1 = Et) was obtained as BrCH2CH:C(CO2Et)2 was unstable and easily polymerized
 IT 106352-28-7P
 (preparation of)
 RN 106352-28-7 HCAPLUS
 CN 2,4,6-Octatrienetetracarboxylic acid, 3,6-dimethyl-, 1,2,7,8-tetraethyl ester (CA INDEX NAME)



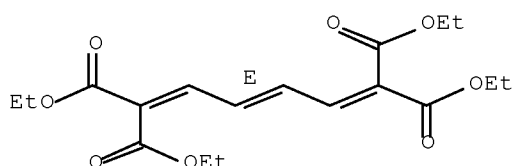
CC 24-2 (Alicyclic Compounds)
 IT 106352-19-6P 106352-22-1P 106352-23-2P 106352-24-3P
 106352-25-4P 106352-26-5P 106352-27-6P 106352-28-7P
 106352-29-8P 106352-30-1P 106352-31-2P 106363-31-9P
 (preparation of)

L23 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1983:470495 HCAPLUS Full-text
 DOCUMENT NUMBER: 99:70495
 ORIGINAL REFERENCE NO.: 99:10943a,10946a
 TITLE: Studies on reactivity of fumaraldehyde: a facile
 synthesis of functionalized furans
 AUTHOR(S): Antonioletti, R.; DeMico, A.; D'Onofrio, F.;
 Piancatelli, G.; Castagnino, E.
 CORPORATE SOURCE: Cent. Stud. Chim. Sostanze Org. Nat., CNR, Rome,
 00185, Italy
 SOURCE: Tetrahedron (1983), 39(8), 1355-8
 CODEN: TETRAB; ISSN: 0040-4020
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 99:70495
 ED Entered STN: 12 May 1984
 GI



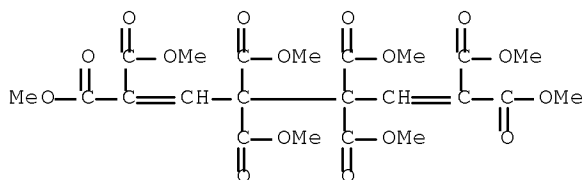
AB Fumaraldehyde, prepared in situ from 2,5-dihydro-2,5-dimethoxyfuran, reacted
 with $\text{RCOCH}_2\text{COR}_1$ ($\text{R} = \text{R}_1 = \text{Me}$; $\text{R} = \text{Me, Et, OEt}$, $\text{R}_1 = \text{OEt}$) to give the furan I
 ($\text{R} = \text{R}_1 = \text{Me}$) and $\text{RCOC}(\text{CO}_2\text{Et})\text{:CHCH:CHCH:C}(\text{CO}_2\text{Et})\text{COR}$ (II). II ($\text{R} = \text{Me, Et}$) was
 cyclized with acid to I ($\text{R} = \text{Me, Et}$, $\text{R}_1 = \text{OEt}$). II ($\text{R} = \text{OEt}$) gave a stable
 complex with $\text{Fe}(\text{CO})_3$.
 IT 86557-31-5P
 (preparation and complexation of, with iron carbonyl)
 RN 86557-31-5 HCAPLUS
 CN 1,3,5-Hexatriene-1,1,6,6-tetracarboxylic acid, tetraethyl ester, (E)-
 (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
 IT ~~86557-31-5P~~
 (preparation and complexation of, with ion carbony)

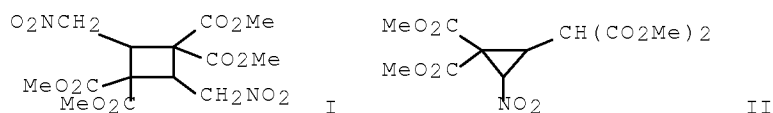
L23 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1981:496621 HCAPLUS Full-text
 DOCUMENT NUMBER: 95:96621
 ORIGINAL REFERENCE NO.: 95:16231a,16234a
 TITLE: The cathodic cleavage of ethanetetra-carboxylate esters
 AUTHOR(S): White, Donald A.; Wagenknecht, John H.
 CORPORATE SOURCE: Corporate Res., Monsanto Co., St. Louis, MO, 63166, USA
 SOURCE: Journal of the Electrochemical Society (1981), 128(7), 1470-2
 CODEN: JESOAN; ISSN: 0013-4651
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 May 1984
 AB The electrochem. reduction of tetra-Me ethane-1,1,2,2-tetracarboxylate to di-Me propanedioate (di-Me malonate) and the similar cleavage of some substituted and some cyclic analogs are reported.
 IT ~~34494-19-4~~
 (electrochem. reduction of)
 RN 34494-19-4 HCAPLUS
 CN 2,6-Octadiene-2,2,4,4,5,5,7,7-octacarboxylic acid, 2,2,4,4,5,5,7,8-octamethyl ester (CA INDEX NAME)



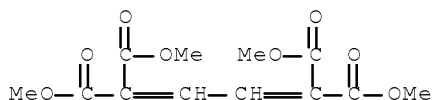
CC 22-5 (Physical Organic Chemistry)
 IT 5464-22-2 7605-66-5 ~~34494-19-4~~ 64374-98-7 64374-99-8
 (electrochem. reduction of)
 OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L23 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1981:139131 HCAPLUS Full-text
 DOCUMENT NUMBER: 94:139131
 ORIGINAL REFERENCE NO.: 94:22773a,22776a

TITLE: Reaction of chloro-substituted nitroethylenes with a malonate
 AUTHOR(S): Buevich, V. A.; Deiko, L. I.; Volynskii, V. E.
 CORPORATE SOURCE: Leningr. Pedagog. Inst., Leningrad, USSR
 SOURCE: Zhurnal Organicheskoi Khimii (1980), 16(11), 2399-403
 CODEN: ZORKAE; ISSN: 0514-7492
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 94:139131
 ED Entered STN: 12 May 1984
 GI



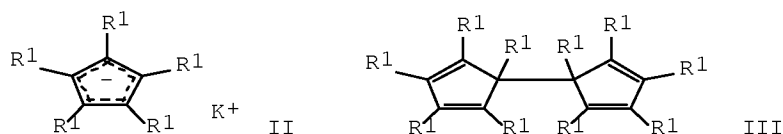
AB ClCH:CHNO₂ reacted with CH₂(CO₂Et)₂ in MeOH-MeONa to give (MeO₂C)₂C:CHCH:N(O)ONa, which on attempted isolation gave the dimer I. ClCH:C(NO₂)Cl and CH₂(CO₂Et)₂ gave II, whereas CCl₂:CHNO₂ gave O₂NCH₂C[CH(CO₂Me)₂]:C(CO₂Me).
 IT 77075-01-5P
 (preparation of)
 RN 77075-01-5 HCAPLUS
 CN 2,4-Hexadiene-2,2,5,5-tetracarboxylic acid, 1,2,5,6-tetramethyl ester (CA INDEX NAME)



CC 23-4 (Aliphatic Compounds)
 Section cross-reference(s): 24
 IT 99-14-9P 77074-99-8P 77075-00-4P 77075-01-5P
 (preparation of)

L23 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1979:103469 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 90:103469
 ORIGINAL REFERENCE NO.: 90:16331a,16334a
 TITLE: On the use of ceric salts as coupling agents; Part 1
 AUTHOR(S): Galakatos, Nicholas G.; Hancock, John E. H.; Morgan, Olwen, M.; Roberts, Michael R.; Wallace, Jeffrey K.
 CORPORATE SOURCE: Dep. Chem., Reed Coll., Portland, OR, USA
 SOURCE: Synthesis (1978), (6), 472-4
 CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 May 1984
 GI



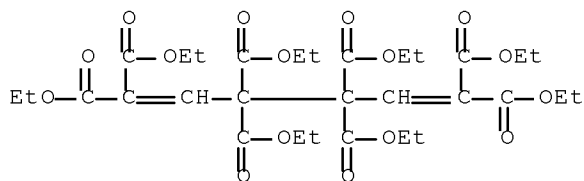
AB $R_2C:CHCR_2^- Na^+$ ($R = CO_2Et$) (I) or II ($R_1 = CO_2Me$) underwent coupling in aqueous solns. in the presence of $Ce(NH_4)_2(NO_3)_6$ to give >97% $R_2C:CHCR_2CR_2CH:CR_2$ and 84% III, resp. I preparation by stirring di-Et malonate in $EtONa/EtOH$ and then adding $HCCl_3$ gives off CO (caution!).

IT 60065-39-6P

(preparation of)

RN 60065-39-6 HCAPLUS

CN 2,6-Octadiene-2,2,4,4,5,5,7,7-octacarboxylic acid,
 2,2,4,4,5,5,7,8-octaethyl ester (CA INDEX NAME)



CC 24-4 (Alicyclic Compounds)
 Section cross-reference(s): 23

IT 60065-39-6P 67341-82-6P
 (preparation of)

L23 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:422324 HCAPLUS Full-text

DOCUMENT NUMBER: 87:22324

ORIGINAL REFERENCE NO.: 87:3521a,3524a

TITLE: Reactions with nitroenamines, XV. Oxidation of
 aci-nitro compounds to olefinic dimers by silver
 ions

AUTHOR(S): Severin, Theodor; Braeutigam, Irmgard; Braeutigam,
 Karl Heinz

CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Muenchen,
 Munich, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1977), 110(5),
 1669-73

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

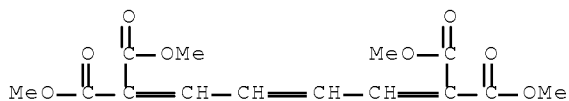
ED Entered STN: 12 May 1984

AB Thermal degradation of the Ag salts of aci-nitropropenes $RR_1C:CHCH:N(O)OH$ [$R = R_1 = MeO_2C$ or EtO_2C ; $R, R_1 = EtO_2C, MeCO$; $H, MeCO$; $Me, EtCO$; $H, (MeO)_2CHCO$] in boiling MeCN gave the hexatrienes $RR_1C:CHCH:CHCH:CRR_2$.

IT 63255-79-8P
(preparation and hydrogenation of)

RN 63255-79-8 HCAPLUS

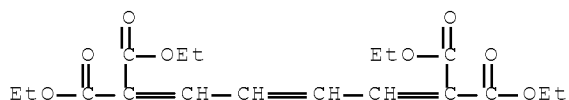
CN 2,4,6-Octatrienetetracarboxylic acid, 1,2,7,8-tetramethyl ester (CA INDEX NAME)



IT 63255-80-1P
(preparation of)

RN 63255-80-1 HCAPLUS

CN 2,4,6-Octatrienetetracarboxylic acid, 1,2,7,7-tetraethyl ester (CA INDEX NAME)



CC 23-17 (Aliphatic Compounds)

IT 63255-79-8P 63255-82-3P
(preparation and hydrogenation of)

IT 16538-91-3P 59534-21-3P 63255-80-1P 63255-81-2P
63255-83-4P 63255-84-5P 63255-85-6P
(preparation of)

L23 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:406408 HCAPLUS Full-text

DOCUMENT NUMBER: 87:6408

ORIGINAL REFERENCE NO.: 87:1043a,1046a

TITLE: Trisubstituted ethylenes containing halo, cyano, and carbomethoxy substituents. New reactive comonomers

AUTHOR(S): Hall, H. K., Jr.; Ykman, P.

CORPORATE SOURCE: Dep. Chem., Univ. Arizona, Tucson, AZ, USA

SOURCE: Macromolecules (1977), 10(2), 464-9
CODEN: MAMOBX; ISSN: 0024-9297

DOCUMENT TYPE: Journal

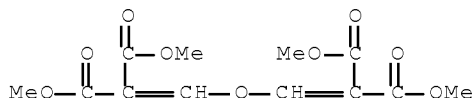
LANGUAGE: English

ED Entered STN: 12 May 1984

AB Eight new electrophilic trisubstituted ethylenes containing halo, cyano, and carbomethoxy substituents copolymerized readily with styrene and bicyclobutane comonomers under free radical conditions to give soluble copolymers with glass transition temps. that were higher when the substituents had high dipolar character. Spontaneous cationic homopolymerization of p-methoxystyrene, caused by

several of the electrophilic olefins, occurred simultaneously with their radical-induced copolymn., and only di-Me 2-cyanoethylene-1,1-dicarboxylate [62693-70-3] gave strictly 1:1 copolymers. 1-Chloro-olefins gave copolymers approaching 1:1 composition, whereas 2-chloro- and 2-fluoroolefins were less satisfactory comonomers. The copolymers of the 1-chloroolefins with styrene gave brittle flammable films.

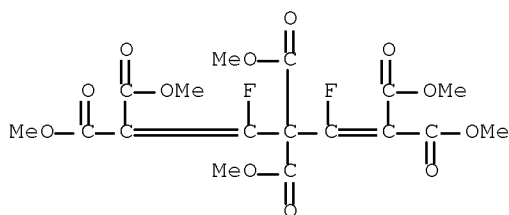
IT ~~62701-46-6P~~
(preparation of)
RN 62701-46-6 HCAPLUS
CN Propanedioic acid, 2,2'-(oxydimethylidyne)bis-, tetramethyl ester
(9CI) (CA INDEX NAME)



CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): 23
IT 16640-68-9P 57205-35-3P 57205-40-0P ~~62701-46-6P~~
(preparation of)
OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS
RECORD (20 CITINGS)

L23 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1976:150165 HCAPLUS Full-text
DOCUMENT NUMBER: 84:150165
ORIGINAL REFERENCE NO.: 84:24395a,24398a
TITLE: Fluorine-containing allenes. 4. Reaction of
esters of perfluoromethacrylic and
difluoromethylenemalonic acids with malonic acid
ester
AUTHOR(S): Rozov, L. A.; Zeifman, Yu. V.; Cheburkov, Yu. A.;
Knunyants, I. L.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya
(1976), (2), 372-4
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian

ED Entered STN: 12 May 1984
AB Condensation of CF₂:C(CF₃)CO₂Me with CH₂(CO₂Me)₂ (I) in absolute Et₂O
containing Et₃N.BF₃ afforded 20% MeO₂CC(CF₃):C:C(CO₂Me)₂. Dehydrofluorination
of CF₃CH(CO₂Me)₂ with Et₃N.BF₃ gave 63% CF₂:C(CO₂Me)₂, which condensed with I
to give 75% (MeO₂C)₂C[CF:C(CO₂Me)₂]₂ and with NaCH(CO₂Me)₂ to give 62%
(MeO₂C)₂C:C[CH(CO₂Me)₂]₂.
IT ~~58975-77-2P~~
(preparation of)
RN 58975-77-2 HCAPLUS
CN 2,5-Heptadienehexacarboxylic acid, 3,5-difluoro-,
1,2,4,4,6,7-hexamethyl ester (CA INDEX NAME)



CC 23-17 (Aliphatic Compounds)
 IT 58975-75-0P ~~58975-77-2P~~ 58975-78-3P
 (preparation of)

L23 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1968:29211 HCAPLUS Full-text

DOCUMENT NUMBER: 68:29211

ORIGINAL REFERENCE NO.: 68:5635a,5638a

TITLE: Bromination of muconyldimalonates

AUTHOR(S): Fles, Dragutin; Majhofer, B.; Kovac, Michal

CORPORATE SOURCE: Istrazivacki Inst. Organ.-Kem. Ind., Zagreb, Yugoslavia

SOURCE: Bulletin Scientifique, Conseil des Academies des Sciences et des Beaux-arts de la R.S.F. de Yougoslavie, Section A. Sciences Naturelles, Techniques et Medicales (1967), 12(5-6), 121-2

CODEN: BSSCBW

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Brominated compds. derived from muconyldimalonates are prepared and the structure of these established by N.M.R. and ir spectroscopy. Muconyldimalonates (I) are synthesized by condensation of muconyl chloride and ethyl malonate, or ethyl tert-butyl malonate. Thus, to a solution of 4.26 g. I (R = CO₂Et) in 50 ml. CCl₄ was added 3.2 g. Br and the solution kept 5 hrs. at room temperature to give 100% tetra-Et 3,4,5,6-tetrabromo-cis-1,7-octadiene-2,7-diol-1,1,8,8-tetracarboxylate II (R = CO₂Et). Similarly 4.6 g. I (R = CO₂Et) gave with 4.8 g. Br 96% tetra-Et 1,3,4,5,6,8-hexabromooctane-2,7-dione-1,1,8,8-tetracarboxylate. With 6.4 g. Br I (R = CO₂Et) gave 6.5% di-E t1,1,3,4,5,6,8,8-octabromooctane-2,7-dione-1,8-dicarboxylate (III), m. 126-7°. Bromination of 1.25 g. I (R = H) with 1.6 g. Br gave 85.1 II (R = H). Similarly 1.25 g. I (R = H) with 3.2 g. Br gave 22% di-Et 1,3,4,5,6,8-hexabromooctane-2,7-dione-1,8-dicarboxylate, m. 134-6°. II was prepared in 42% yield by treating 0.9 g. I (R = H) with 1.3 g. Br.

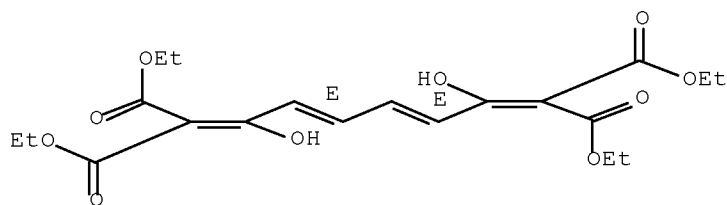
IT ~~18451-35-9~~

(bromination of)

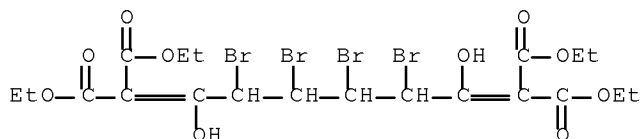
RN 18451-35-9 HCAPLUS

CN 1,3,5,7-Octatetraene-1,1,8,8-tetracarboxylic acid, 2,7-dihydroxy-, tetraethyl ester, (E,E)- (8CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 18328-53-5P
 (preparation of)
 RN 18328-53-5 HCAPLUS
 CN 2,8-Decadienetetracarboxylic acid, 4,5,6,7-tetrabromo-3,8-dihydroxy-,
 1,2,9,9-tetraethyl ester (CA INDEX NAME)



CC 23 (Aliphatic Compounds)
 IT 18451-35-9 18451-36-0
 (bromination of)
 IT 18328-53-5P 18328-54-6P 18328-55-7P 18328-56-8P
 18451-37-1P
 (preparation of)

L23 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1922:24645 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 16:24645

ORIGINAL REFERENCE NO.: 16:4187d-i, 4188a-b

TITLE: Ring-chain tautomerism. III. The occurrence of
 tautomerism of the three-carbon (glutaconic) type
 between a homocyclic compound and its unsaturated
 open-chain isomeride

AUTHOR(S): Ingold, Christopher Kelk; Perren, Edward Arthur;
 Thorpe, J. F.

SOURCE: Journal of the Chemical Society, Transactions (
 1922), 121, 1765-89

CODEN: JCHTA3; ISSN: 0368-1645

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 16 Dec 2001

AB cf. C. A. 16, 912, 2141, 3065. A general discussion of the conditions which govern the occurrence of any Michael reaction: The acetic ester must contain a neg. substituent such as a -CO₂Et or -CN group to confer the necessary mobility on the adjacent H atom. The acrylic ester involved should be only lightly substituted. The presence of a β-substituent, particularly 2 β-substituents, considerably reduces the tendency towards condensation. The effect is apparently a spatial one. The presence of an α-substituent greatly inhibits condensation, the magnitude of the effect depending on the size of the group. The simple spatial relationships noted above break down in the

case of strongly electroneg. substituents, such as the $-\text{CO}_2\text{Et}$ and $-\text{CN}$ groups, which inhibit condensation very slightly. Et α -cyano- γ -ethylglutaconate (from Et α -formylbutyrate, b15 100° , and $\text{CHNa}(\text{CN})\text{CO}_2\text{Et}$), b14 163° . The γ -Ph derivative, b14 $200-5^\circ$. The self-condensation of glutaconic esters alone and with piperidine was tested for a number of compds. The following esters appeared not to have given any condensation product after a year:

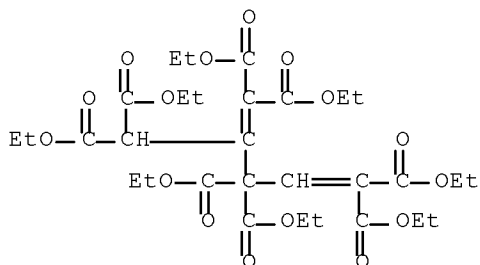
$\text{EtO}_2\text{CCH}_2\text{CH}:\text{CHCO}_2\text{Et}$, $\text{EtO}_2\text{CCH}_2\text{C}(\text{CO}_2\text{Et}):\text{CHCO}_2\text{Et}$, $\text{EtO}_2\text{CCHMeCH}:\text{CHCO}_2\text{Et}$, $\text{EtO}_2\text{CCH}_2\text{CMe}:\text{CHCO}_2\text{Et}$, $\text{EtO}_2\text{CCH}(\text{CN})\text{CMe}:\text{CHCO}_2\text{Et}$, $\text{EtO}_2\text{CCH}(\text{CN})\text{CMe}:\text{C}(\text{Et})\text{CO}_2\text{Et}$, $\text{EtO}_2\text{CCH}(\text{CN})\text{CH}:\text{CMeCO}_2\text{Et}$, $(\text{EtO}_2\text{C})_2\text{CHCH}:\text{C}(\text{Et})\text{CO}_2\text{Et}$, $\text{EtO}_2\text{CCH}(\text{CN})\text{CH}:\text{C}(\text{Et})\text{CO}_2\text{Et}$ and $\text{EtO}_2\text{CCH}(\text{CN})\text{CH}:\text{CPhCO}_2\text{Et}$. The self-condensation of $(\text{EtO}_2\text{C})_2\text{CHCH}:\text{CHCO}_2\text{Et}$ is practically complete in a week in the presence of a catalyst, giving Et 2,2,4,4,-tetracarboxycyclobutane-1,3- diacetate (cf. Guthzeit, C. A. 4, 906). In the condensation of $(\text{EtO}_2\text{C})_2\text{CHCH}:\text{C}(\text{CO}_2\text{Et})_2$ in the presence of piperidine, Et piperidinomethylenemalonate also is formed, pale yellow rhombohedral plates, m. 216° (decomposition). Et 2,2,4,4-tetracarboxycyclobutane-1,3-dimalonate, m. 103° , upon fusing, or maintaining in solution with piperidine for a long period, gives an equilibrium mixture, containing about 80% of the cyclobutane ester and about 10% of Et $\alpha,\alpha,\gamma,\gamma,\epsilon,\epsilon$ -

hexacarboxy- $\Delta\alpha$ -pentene- δ -malonate, the constitution of which was established by hydrolysis to α,γ,ϵ -tricarboxy- $\Delta\alpha$ -pentene- δ - acetic acid, sirupy, which, on oxidation, gave $\text{CH}(\text{CH}_2\text{CO}_2\text{H})_3$. Et 2,4-dicyano-2,4-dicarboxycyclobutane-1,3-di- α -propionate, from the condensation of $\text{EtO}_2\text{CCH}(\text{CN})\text{CH}:\text{CMeCO}_2\text{Et}$, long silky needles and small glistening plates, both m. 87° . With 20% HCl this gives a mixture of trans-2,4-dicarboxycyclobutane-1,3-di- α -propionic acid, m. 251° , separated from the cis-acid by treatment with AcCl , which converted the latter into its anhydride; cis-acid, m. $144-5^\circ$. Condensation of different esters gave: Et 2-cyano-2,4,4-tricarboxycyclobutane-1-malonate-3- α -propionate, viscous liquid, b15 260° . Et 2,2,4,4-tetracarboxycyclobutane-1-malonate-3-acetate, long needles, m. 92° . Et 2-cyano-2,4,4-tricarboxycyclobutane-1-acetate-3- α -propionate, stout prisms, m. 81° . 2,4-Dicarboxycyclobutane-1,3-diacetic anhydride, by boiling either the α - or β -form of the acid with AcCl , m. 235° . On heating the β -acid with 30% HCl at 200° for 5 h., it is converted to the ϵ -acid, m. 223° .

IT 861336-62-1P, $\Delta 1-1,1,3,3,5,5$ -Pentenehexacarboxylic acid, 4-(dicarboxymethyl)-, octaethyl ester (preparation of)

RN 861336-62-1 HCAPLUS

CN 2,5-Heptadienehexacarboxylic acid, 3-[2-ethoxy-1-(ethoxycarbonyl)-2-oxoethyl]-, 2,2,4,4,6,7-hexaethyl ester (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 36873-42-4P, Butyric acid, α -formyl-, ethyl ester 62615-75-2P,

10/567,430

Malonic acid, (1-piperidylmethylene)-, diethyl ester 98129-24-9P,
1,3-Cyclobutanedimalonic acid, 2,2,4,4-tetracarboxy-, tetraethyl
ester 861315-93-7P, Cyclobutanemalonic acid,
2,4,4-tricarboxy-3-(α -carboxyethyl)-2-cyano-, hexaethyl ester
~~861336-62-1P~~, Δ 1-1,1,3,3,5,5-Pentenehexacarboxylic acid,
4-(dicarboxymethyl)-, octaethyl ester 861342-50-9P,
 Δ 1-1,3,5-Pentenetricarboxylic acid, 4-(carboxymethyl)-
861618-99-7P, Cyclobutanemalonic acid,
2,2,4,4-tetracarboxy-3-(carboxymethyl)-, heptaethyl ester
861619-11-6P, 1,3-Cyclobutanediacyetic acid,
2,2,4-tricarboxy-4-cyano- α' -methyl-, pentaethyl ester
861619-13-8P, 1,3-Cyclobutanediacyetic acid,
2,4-dicarboxy-2,4-dicyano- α,α' -dimethyl-, tetraethyl ester
(preparation of)

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RECORD (1 CITINGS)

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(FILE 'HOME' ENTERED AT 07:51:35 ON 11 JAN 2010)

FILE 'HCAPLUS' ENTERED AT 07:51:45 ON 11 JAN 2010

L1 1 SEA SPE=ON ABB=ON PLU=ON US20060241245/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 07:52:00 ON 11 JAN 2010

L2 5 SEA SPE=ON ABB=ON PLU=ON (183892-60-6/BI OR 333305-83-2/
BI OR 68858-20-8/BI OR 838839-63-7/BI OR 838839-64-8/BI)

L3 1 SEA SPE=ON ABB=ON PLU=ON L2 AND "(C2 H4 O)N C12 H18
O5"/MF

FILE 'HCAPLUS' ENTERED AT 07:52:47 ON 11 JAN 2010

L4 3 SEA SPE=ON ABB=ON PLU=ON L3

FILE 'REGISTRY' ENTERED AT 07:53:01 ON 11 JAN 2010

L5 STR 333305-83-2

L6 13 SEA SSS SAM L5

L7 STR L5

L8 18 SEA SSS SAM L7

L9 531 SEA SSS FUL L7

L10 1 SEA SPE=ON ABB=ON PLU=ON L9 AND L2
SAV L9 KHA430/A

L11 140 SEA SPE=ON ABB=ON PLU=ON L9 NOT 1-100/NR

L12 92 SEA SPE=ON ABB=ON PLU=ON L11 NOT (S OR N OR P OR
SI)/ELS

L13 0 SEA SPE=ON ABB=ON PLU=ON 333305-83-2/CRN

L14 STR L7

L15 0 SEA SUB=L9 SSS SAM L14

L16 11 SEA SUB=L9 SSS FUL L14

SAV L16 KAH430A/A

L17 8 SEA SPE=ON ABB=ON PLU=ON L16 NOT 1-100/NR

L18 6 SEA SPE=ON ABB=ON PLU=ON L17 NOT (S OR N OR P)/ELS

FILE 'HCAPLUS' ENTERED AT 08:14:08 ON 11 JAN 2010

L19 7 SEA SPE=ON ABB=ON PLU=ON L18

L20 66 SEA SPE=ON ABB=ON PLU=ON L12

L21 61 SEA SPE=ON ABB=ON PLU=ON L20 AND (1840-2006)/PRY,AY,PY

L22 55 SEA SPE=ON ABB=ON PLU=ON L21 NOT L19

L23 28 SEA SPE=ON ABB=ON PLU=ON L22 AND RACT/RL